April, 1943

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ROIT

Yachting

FEATURES IN THIS ISSUE

GET 'ER OVERBOARD

SPEAKING OF CHARTERS . . . . . *By Hardy Lee*
THE INTERNATIONALS . . . . . *By Critchell Rimington*
GADGETS & GILHICKIES . . . . . WATERFRONT NEWS

PRACTICING FOR
THE Attack!
OWENS-BUILT landing barges and patrol boats being put through their paces prior to delivery to the Armed Forces. Owens uses Texaco 100%.

Official U. S. Marine Corps Photo

OVER THE SIDE and down the cargo nets they go, for a quick dash to the beach.

To assure faultless performance of the many types of small craft supplied to our Armed Forces, boat and engine builders not only construct them to rigid standards, but the great majority of them tune up, conduct trials and operate their factories on TEXACO.

In selecting Texaco Products, the industry secures the same high quality supplied to the U. S. Army, Navy, Coast Guard, U. S. Engineers, and a majority of steamship companies operating vessels for the War Shipping Administration.

Texaco Waterfront Dealers are at their stations, ready to help boat-owners keep their craft at peak. Call upon them freely, or write:

The Texas Company, *Marine Sales Division*, 135 East 42nd Street, New York, N. Y.

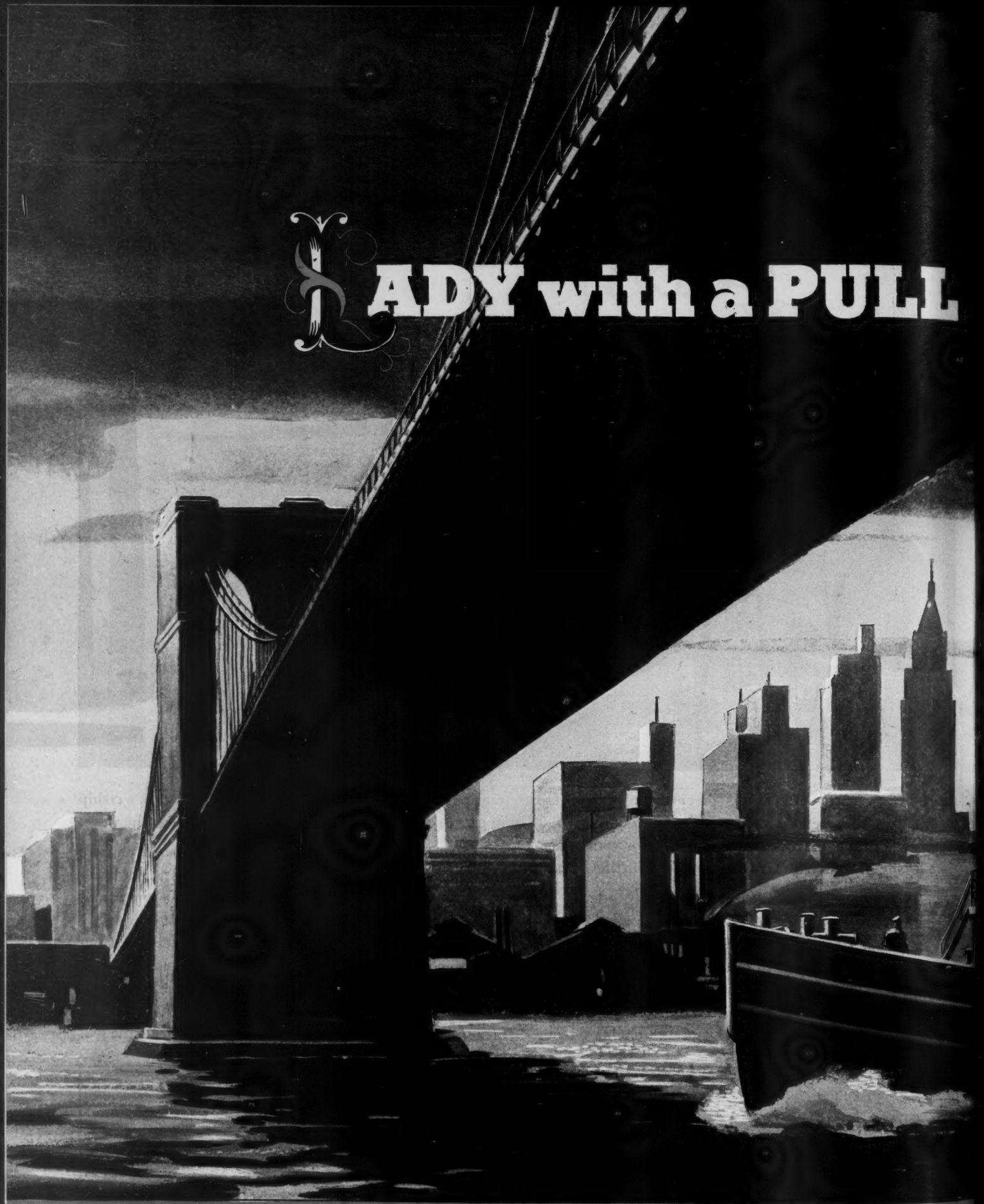
TUNE IN FRED ALLEN every Sunday night—CBS

YACHTING, April, 1943. Vol. 73, No. 4. Published monthly at 10 Ferry Street, Concord, N. H. Editorial, Circulation and Advertising Offices, 205 East 42nd Street, New York, N. Y. $4.00 a year, 50 cents a copy. Entered as Second-Class matter at the Post Office at Concord, N. H., under theAct of March 3, 1879.

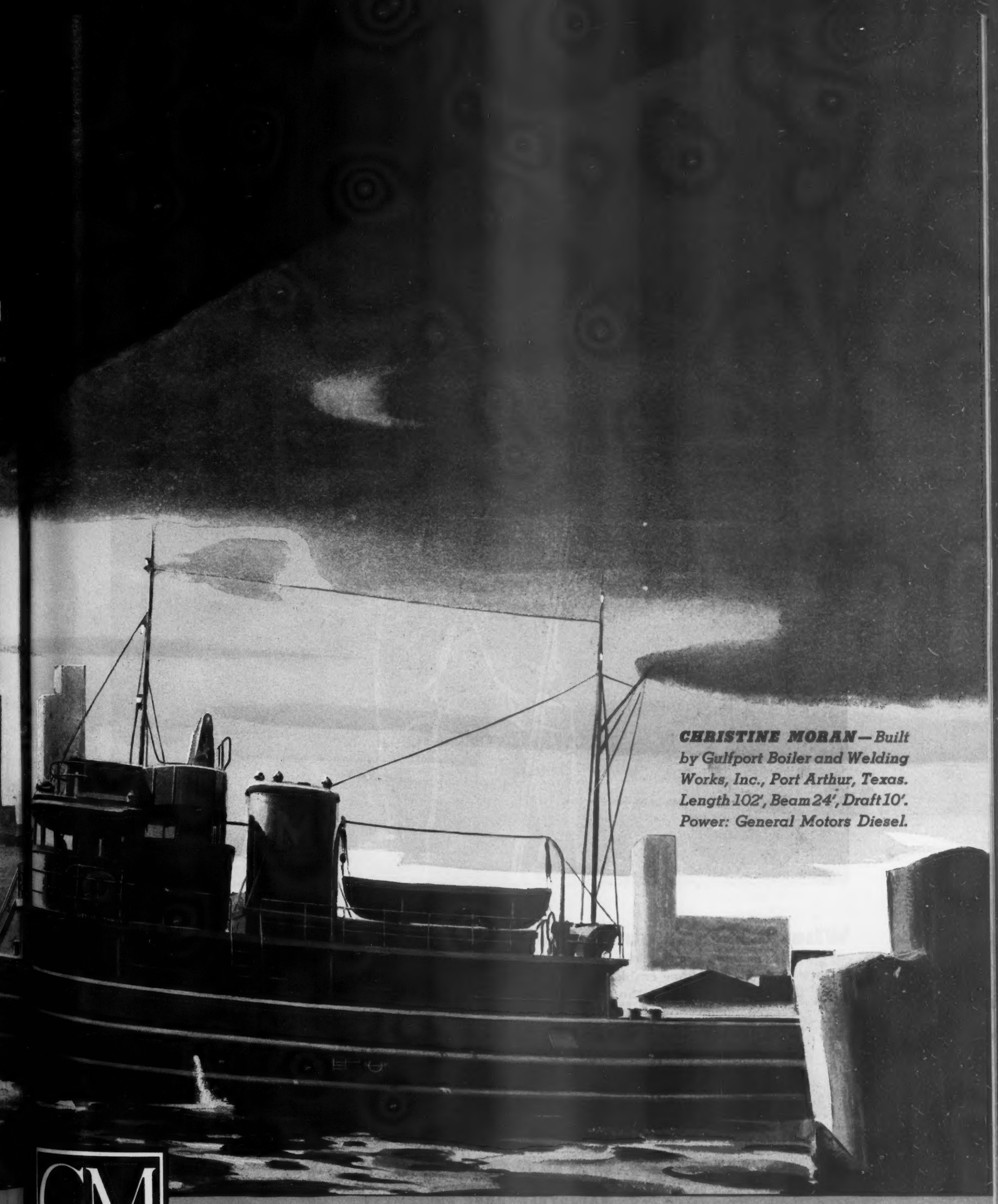
IF THIS advertisement revives precious memories, if it promises the inevitable restoration of boating, if it steels you during your war labors of today, for your peacetime legacy of tomorrow, it will have been justified many times.

At the Greenport Yard this year, there are all the fascinating sounds, scents and bustle of a boatyard in the Springtime. The shiny coils of new manila line. The aromatic creosote of fresh bottom paint. But when the clank of the chains on our marine railways announce another launching, a warship in gray, not a dream ship in white, is going down the ways.

When men once more can seek their livelihood or take their pleasure on seas of peace, the Greenport Yard will be ready to build your new dream ship or to repair and refit the boat that has endeared herself to you over many seasons. At the docks and marina of this Yard in summers to come, visiting ships and crews will find the same friendly welcome, the same traditional service, the same peaceful anchorage that for years have beckoned boatmen to Greenport, where Long Island Sound meets the sea.



BUILT to do the toughest kind of harbor and deep-sea towing, the Christi
Moran is powered with a GM Diesel. Other Moran tugs, Army, Navy, Coas
Guard and commercial vessels also are relying upon this dependable power



***CHRISTINE MORAN**—Built by Gulfport Boiler and Welding Works, Inc., Port Arthur, Texas. Length 102', Beam 24', Draft 10'. Power: General Motors Diesel.*

GM
GENERAL MOTORS
DIESEL POWER

ENGINES . *300 to 2000 H.P. CLEVELAND DIESEL ENGINE DIVISION, Cleveland, Ohio*

ENGINES . . . . . *15 to 250 H.P. DETROIT DIESEL ENGINE DIVISION, Detroit, Mich.*

LOCOMOTIVES . . . . . *ELECTRO-MOTIVE DIVISION, La Grange, Ill.*

Wherever man goes • • • even when he fishes far off the mainland, the two-way radiotelephone enables him to converse freely with those ashore. This medium of communication is new, conveys conversation clearly, quickly, certainly. After the war you will be using the two-way radiotelephone extensively both in your business and social activities. So remember this name—*Jefferson-Travis.* We have pioneered in the radiotelephone field and have perfected this electronic device for use by the United Nations throughout the world on sea, land and in the air.

JEFFERSON-TRAVIS

RADIOTELEPHONE EQUIPMENT

NEW YORK • WASHINGTON • BOSTON

HIGGINS BOATS Score in the Solomons

"WE USED HIGGINS BOATS TO TAKE THE BEACH" dispatches flashed from the Solomons said. Fast, rugged Higgins Landing Boats that put troops dryshod on sandy or rocky ocean beaches. Highly maneuverable Higgins "Crocodiles" that discharge cargoes of tanks and equipment the instant a beach-landing is effected. Powerful Higgins PT Boats for protection and assault.

From Africa and elsewhere came the same success story. Boats designed and built by Higgins for the United Nations are in the vanguard of invasion.

Details of design and dependability that enable Higgins Boats to score successfully in the Solomons are the patented and exclusive property of Higgins Industries, Inc. Tested in the laboratories of war, the new, improved Higgins Boats that are to come to you in the peace will meet every test that leadership imposes.

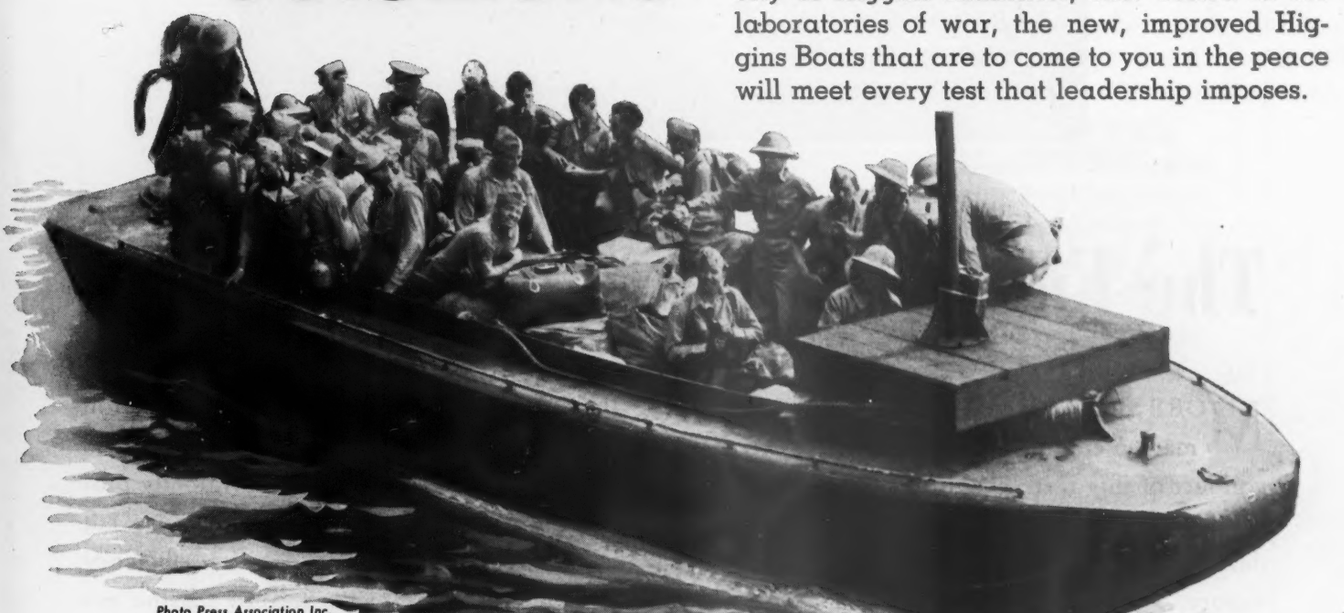
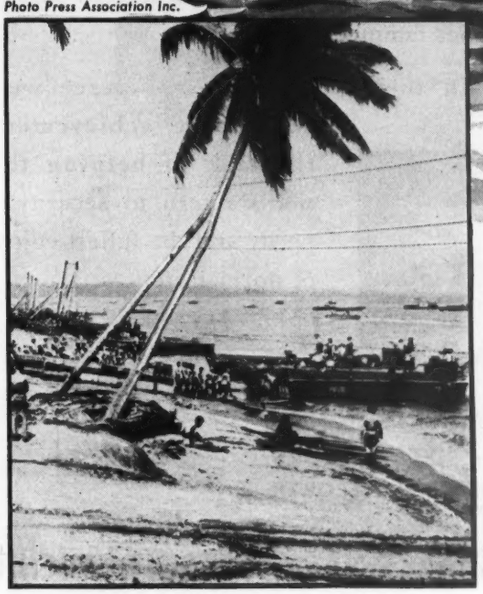
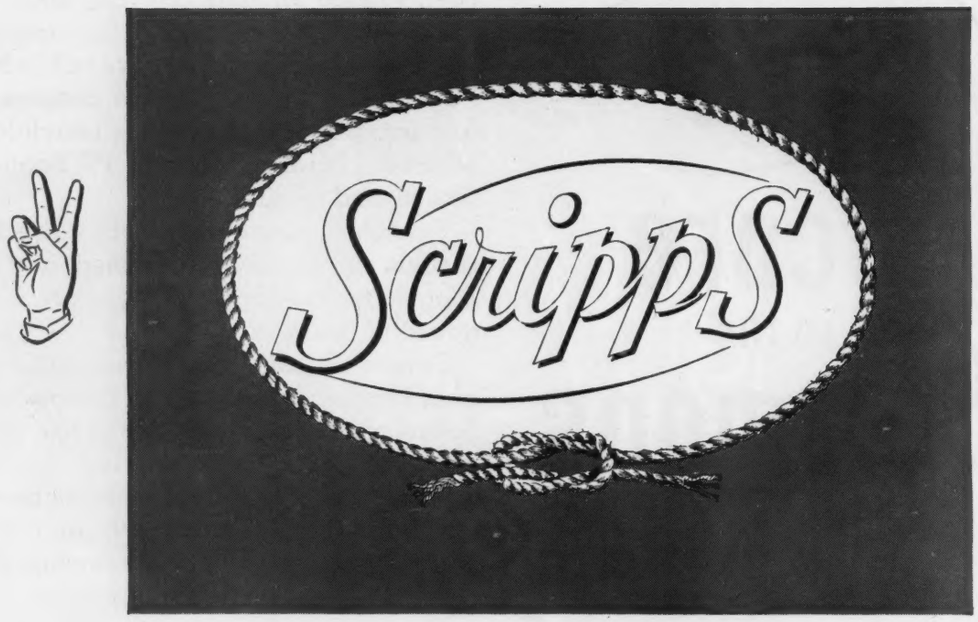


Photo Press Association Inc.



Higgins INDUSTRIES INCORPORATED
NEW ORLEANS

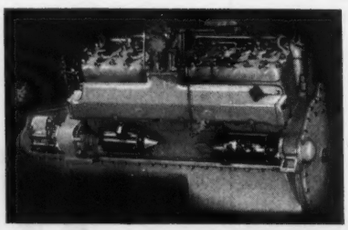
WORLD'S LARGEST BUILDERS OF BOATS
ORIGINATORS AND PATENTEES OF THE HIGGINS EUREKA LANDING BOATS



The Engine you'll be proud to own

MORE vitally dependable than ever, Scripps marine engines are making history in the conduct of this war. For the fighting forces of the United Nations Scripps whole-heartedly devotes its entire resources and energy towards victory.

These fine engines, at the front, in the thick of the battles, are on their Axis smashing job taking terrific punishment and giving performances that more than justify their choice. We are proud to be their creators and builders.



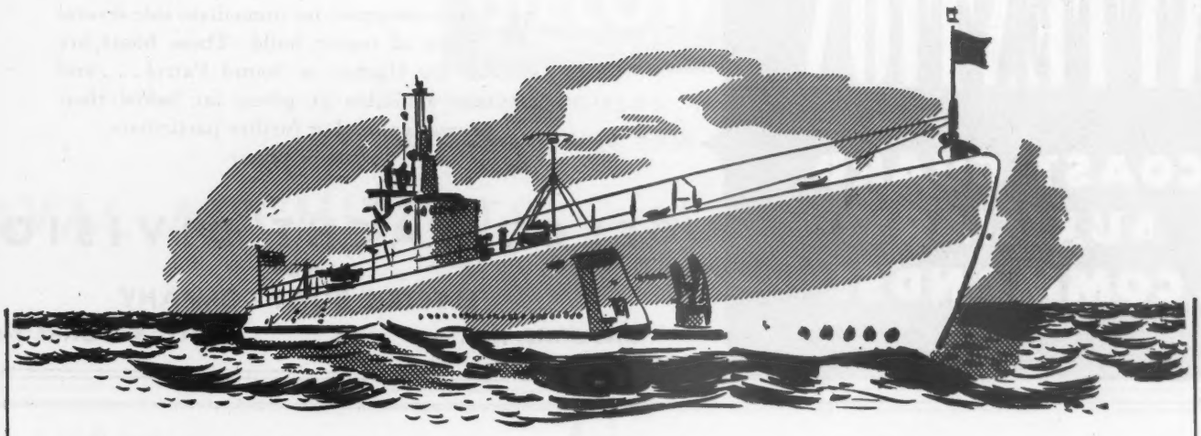
By constant research and military application new forward steps in mechanical developments have been gained, also, features originally pioneered by Scripps have been further improved, thereby increasing the dependability, efficiency and power that have made Scripps marine engines famous since 1906.

In the era that follows peace we shall turn these achievements to the task of helping the nation's return to security, prosperity and the fullest enjoyment of normal life.

Invest in U. S. War Bonds
BUY REGULARLY

GASOLINE AND DIESEL MARINE ENGINES
V-TWELVES • V-EIGHTS • SIXES • FOURS
TWENTY-FIVE TO SIX HUNDRED* HORSEPOWER
*TWIN SCREW

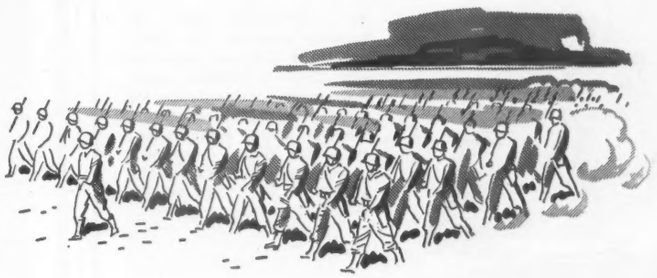
SCRIPPS MOTOR COMPANY — 5817 Lincoln Avenue — DETROIT, MICHIGAN



PETROLEUM'S PLACE IN THE WAR EFFORT: EVERY PLACE!

UNDER THE COVER of darkness the submarine comes to the surface, and with the power of its Diesel-powered engines recharges its batteries so that it might travel beneath the surface, come the morrow. Diesel fuels are also used to supply the motive power of PC boats and similar small craft.

NO LONGER do soldiers Drill on fields covered with dense clouds of dust. For dust-laying oils, developed for peacetime use on playgrounds are being used on parade grounds to provide a cleaner, healthier place for training.



BECAUSE OF modern refrigerating methods foods can be kept at neighborhood food store freshness no matter how far our armed forces may be from home. Refrigerator machine oils with low pour points are used extensively for the compressors for virtually all refrigerating and ice making equipment—from the small home unit to the giant industrial and Army installations.

★ *The American petroleum industry has undertaken—and is performing—huge tasks of immense importance to our war effort. Gulf takes deep pride in its privilege of serving in these accomplishments.*

GULF OIL CORPORATION
GULF REFINING COMPANY

GULF

How many U. S. War Bonds will you wish you'd bought 10 years from now?

ATTENTION

COAST GUARD AUXILIARY COMMANDS!

WE ARE OFFERING for immediate sale several Elcos of recent build. These boats are suitable for Harbor or Sound Patrol . . . and are now available at prices far below their normal value. For further particulars, write or phone:

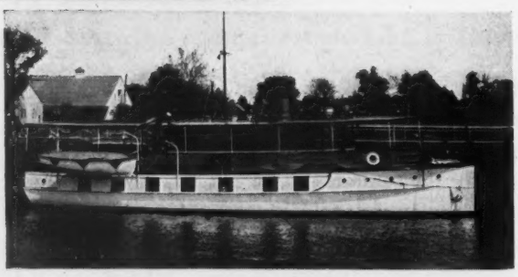
ELCO YACHT DIVISION
of the
ELECTRIC BOAT COMPANY
BAYONNE, N. J. TEL. BAYONNE 3-6200

YACHT SALES & SERVICE, INC.

Naval Architects, Yacht Brokers, Marine Insurance and Appraisals

1528 WALNUT STREET PHILADELPHIA, PA.

No. 1769—For Sale or Summer Charter—37′ Casey shoal draft C.B. yawl, powered with Gray 4-cylinder motor. Comfortable accommodations for four or six. Cruising equipment complete. Boat in excellent condition. For further particulars, communicate with YACHT SALES & SERVICE, Inc., 1528 Walnut Street, Philadelphia, Pa.



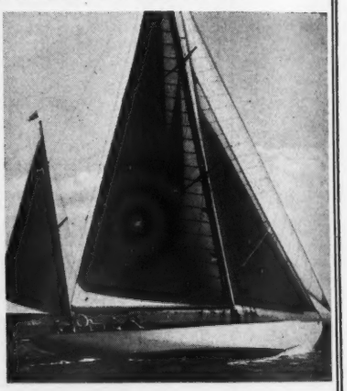
No. 714—FOR SALE—65′ Mathis houseboat, powered with Lathrop 6-cylinder motors. Boat has not been in commission for several years, although well cared for. Accommodations for seven and crew of three. This boat is being offered at most attractive figure due to owner's permanent absence. Inspection by appointment through YACHT SALES & SERVICE, Inc., 1528 Walnut Street, Philadelphia, Penna.

John G. Alden

Naval Architect

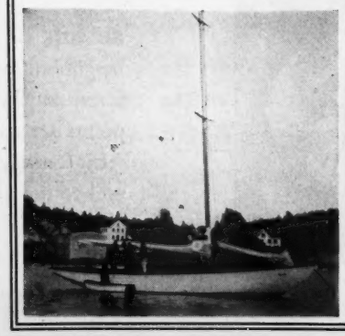
BOSTON, MASSACHUSETTS

No. 620 (*right*) — One of the best of the modern flush deck cruising yawls 57′ overall, 41′ waterline, 13′ 3″ beam, 8′ draft. Our design built by Quincy Adams Yard 1936 of selected materials. Teak decks and trim, double planking. Nearly new Ratsey sails. Gray motor. Can hold her own with anything of her size. Triple stateroom, four berths in cabin, roomy galley, large forecastle. Exceptional condition. For sale at low figure.



No. 598 (*lower right*) — Cruising cutter. 33′ x 28′ 6″ x 11′ x 5′. Alden design 1935. Mahogany planked, bronze fastened. Has good turn of speed. Large cockpit and ample floor space. Separate motor compartment with Gray 4–22, galley aft, large cabin and double stateroom. Toilet amidships. Laid up in Massachusetts.

No. 648 (*below*) — Fast and able cutter. 49′ x 35′ x 12′ x 6′ 3″. Double mahogany planking. Teak decks. Built our design 1937. Winner of Mackinac Race. Large double stateroom aft, 4 berths main cabin, extra large galley, separate forecastle. Full set Ratsey racing sails. 40 h.p. Gray motor. High grade boat. Location Great Lakes.



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INCORPORATED

11 BROADWAY NEW YORK — TELEPHONE BOWLING GREEN 9-4000 — CABLE BROKERAGE

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ALL TYPE YACHTS FOR SALE OR CHARTER

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Represented in All Important Yachting Centers

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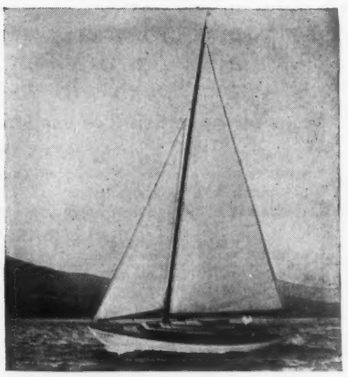
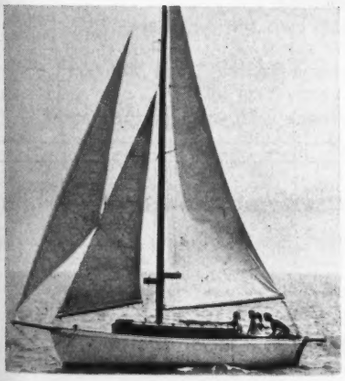
NAVAL ARCHITECTS & MARINE ENGINEERS
BROKERS

Represented, DETROIT MIAMI LOS ANGELES

C. P. AMORY, DISTRIBUTOR, INC.
Fine Motor Yachts — Marine Insurance
Deal Building, 99-28th Street, Newport News, Virginia

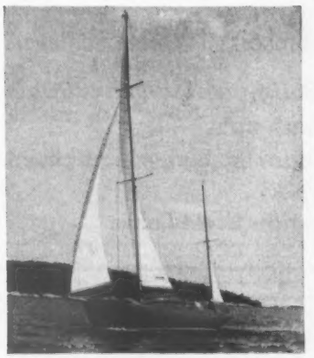


36′ Alden Coastwise Cruiser, two cabins, fine galley, new sails, perfect condition. C. P. Amory, Distributor, Inc.



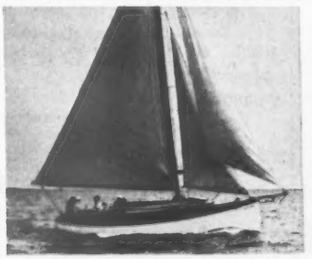
28′ Sloop, double-head rig, splendid condition. Available in Virginia waters. C. P. Amory, Distributor, Inc.

ELDREDGE-McINNIS, INC.
131 State Street, Boston, Mass.
YACHT BROKERS Telephone HUBbard 2910 NAVAL ARCHITECTS



No. 5235—For Sale—One of the few 40′ auxiliary yawls of recent build available. Boat new in 1940 and used only two summers. Sleeps six with double stateroom forward. Sponge rubber mattresses. In Maine.

No. 5249—For Sale—Beautiful auxiliary ketch, 40′ 3″ o.a., built 1937. New sails used only one season. Sleeps five comfortably. Galley almost entirely Monel metal. Good equipment.



No. 4987—Very able and popular keel cruising cutter, the only one of five sister ships available, 30′ 3″ x 10′ 9″ x 4′ 8″, built 1938.

No. 4934—30′ Casey cutter, new 1938, very roomy shoal draft auxiliary, sleeping five with double stateroom forward.

C. A. Hansen
YACHT INSURANCE

Ingraham Building
Miami, Florida

116 John Street
New York

JOHN E. RODSTROM, ASSOCIATE

NO, WE DO NOT SELL BOATS, BUT WE INSURE THE BEST OF THEM

WILLIAM GARDNER & CO.

21 WEST STREET, NEW YORK

Telephone: DIgby 4-9257

NAVAL ARCHITECTS

MARINE ENGINEERS MARINE BROKERS

JOHN H. WELLS, INC.

Associate — Walter H. Millard, N.A.

Telephone: Plaza 8-1065-6

444 Madison Avenue ▪ New York City

Naval Architects Marine Brokers Marine Engineers

Listings on Power and Sailing Vessels Available

EXCEPTIONAL BUYS:

52′ Schooner, A-1 condition, elaborate equipment

22′ Auxiliary sloop, new 1938

Diesel auxiliary ketch. Location Great Lakes

TAMS
INCORPORATED

250 PARK AVENUE, NEW YORK

ELDORADO 5-6850

Naval Architects Marine Engineers

Yacht Brokers

I Want to Buy

A complete marine hardware store with stock and fittings at a price not to exceed $15,000. This equipment is to be moved to Florida and should include only physical inventory. Mail complete details to Box No. 622, Miami, Florida.

WANTED: BOAT YARD LOCATION

PREFERABLY ON LONG ISLAND SOUND

Long lease or purchase

SUITABLE HANDLING AVERAGE SIZE YACHTS

JAMES KEANE 1150 CONNECTICUT AVENUE, WASHINGTON, D. C.

For Sale

YACHT BUILDING BOAT YARD

Now working at capacity on government orders. Excellent buildings and efficient modern facilities for construction of boats up to 100′. Location ideal for business after the war. None except principals need apply. Inquiries treated confidentially. Owner wishes to retire. Terms $75,000 cash, balance can be arranged on terms. Reply Box No. 407, care of YACHTING, 205 East 42nd Street, New York City.

PLANS FOR SALE

Swedish North Sea Cruiser. Sleeps two. 24′ 7″ x 18′ x 7′ 2″ x 4′ 3″.

New Zealand Tisman Sea Cruiser. Sleeps two. 23′ 1″ x 18′ x 7′ x 4′. Price $20. Will consider Cutler or Lubbock books. *Wanted:* Small cuddy cabin sloop, quote price, age.

CLAY PRIETO, MANDEVILLE, LA.

RICHARDSON CRUISER

Little Giant 26′ cabin cruiser. 1937. 51 Gray. Dinghy. Very complete in every detail. Excellent condition. Reply Box No. 401, care of YACHTING, 205 East 42nd Street, New York, N. Y.

Do you want to sell or charter your boat? A classified advertisement in YACHTING might put you in touch with the man who wants her.

Rates for advertising of used boats for sale or wanted are:

SMALL UNITS

1 column x 1″ —no illustration (minimum space)	$ 6.50
1 column x 1½″—no illustration	9.50
1 column x 2″ —no illustration	12.50

ILLUSTRATED UNITS

1 column x 1½″—including cost of cut	$12.25
1 column x 2″ —including cost of cut	15.00
1 column x 2½″—including cost of cut	18.00
1 column x 3″ —including cost of cut	21.00
1 column x 3½″—including cost of cut	24.00
1 column x 4″ —including cost of cut	27.00
2 columns x 1½″—including cost of cut	21.00
2 columns x 2″ —including cost of cut	27.00

RATES FOR LARGER UNITS SENT ON REQUEST

▪

Classified advertising is Payable Upon Insertion

▪

Please forward remittance with your advertisement

Have YOU *any used equipment or gear that some fellow yachtsman needs?*

TRY LISTING IT IN THE

SWAP CHEST

Here's a letter from an enthusiastic Swap Chest advertiser, who tells you how well it worked for him:

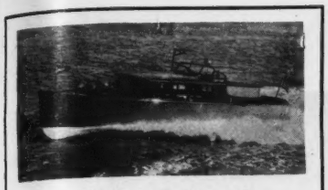
I am sure you will be interested in a report of my experiences in connection with the Swap Chest ad in your February issue.

To date I have had inquiries from 34 individuals running from Maine to Florida, in a circle around the Great Lakes, and one from the West Coast. I could follow the mailing progress very nicely, in fact, I had inquiries from around New York City before my own issue of YACHTING came to hand.

Almost every bit of the material has been sold, the majority of it sight unseen, with no quibbling as to price or shipping. One fellow made a special trip from Sandusky to look over the motor and other sundry equipment and wrote me a check for the entire amount against future delivery.

My experience, therefore, would indicate that your Swap Chest Department is a genuine service to the yachtsman who has something to sell and to the fellow who is trying to keep the boat in commission.

Send your Swap Chest advertisement to YACHTING TODAY!



38′ Express Cruiser

Very anxious to dispose of this boat, make offer

52′ Post-Built Alden-Designed Schooner

44′ Motor Sailer Type Ketch

Good cruising boat, very seaworthy

Large assortment of good power boats, auxiliary sailboats, small day sailing boats, and marine motors. Several of the power boats would make good Coast Defense boats or small freight or passenger boats.

FRANKLIN G. POST & SON, INC.
MYSTIC, CONNECTICUT

FREE USE ATLANTIC CLASS SLOOP

Must get afloat this season. New sails and rigging. You put in commission and carry adequate insurance. New York vicinity. Write Box 402 YACHTING.

• SWAP CHEST •

8 cents a word — $1.50 minimum

Please send remittance with order

Wanted: Useable mainsail for Herreshoff 15 ft. "E" Boat. Also Jib. Will swap cash. Box 4–1.

Wanted: Dyer "D" dink complete. Two sets of high-grade wood yacht blocks, suitable for use on running backstays on 30-foot sloop. Box 4–2.

Wanted for cash: eighteen inch diameter, ten to twelve inch pitch, right hand two bladed propeller bored for one and one-eighth inch shaft. Box 4–3.

Swap or cash for twenty-foot spruce topmast with cast bronze hounds and fittings — also topsails, trysails, jib and Sands toilet. Box 4–4.

Wanted: Sail and mast, type used on Scaup Sheerside Barnegat Sneakbox; 7 ft. mast 2 inches diameter with 6 ft. boom 2¼ inch diameter; also centerboard for same.

Want used parachute spinnaker size about that of International class or six meter class. Please give dimensions, condition, maker, etc. Box 4–6.

Thoroughbred Chestnut Mare, excellent hunter and jumper, papers; Swap for 16–18 foot inboard open motor boat, Dodge or Elco preferred, in good condition. Box 4–7.

Wanted: Use of Penguin for Washington, D. C. spring races. Use my sail and out-fitting help or? Box 4–8.

Wanted: Class B or larger sailing dinghy in good condition, with good sails. Box 4–9.

Wanted: Swap $4000 equity in $5000 Tidewater Virginia farm. Eight room dwelling, barn, out buildings, for good cruiser or schooner in commission. Box 4–10.

Wanted: An anchor windlass built by Henry B. Nevins, Inc., or a large capstan built by Herreshoff Manufacturing Co. Give dimensions and price. Box 4–11.

Want 8′ Hydrolite dinghy by Anchorage or Skaneateles, or 8′ Penn Yan Aerodinghy Model CX. Box 4–12.

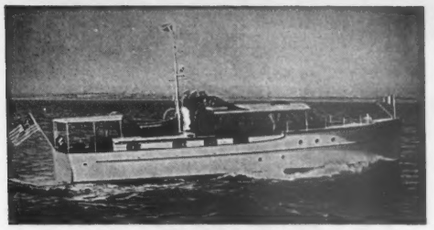
Want for cash: 10–12 inch ship's bell clock. Box 4–13.

Swap for cash: De luxe Penguin dinghy, bronze fastened, bright mahogany except planking, airplane spruce spars, good sail by Larsen, used one season. Box 4–14.

Send Replies to Swap Chest, Care "Yachting"
205 East 42nd Street, New York

CHARLES W. BLIVEN & CO.

NAVAL ARCHITECTS YACHT BROKERS MARINE INSURANCE
APPRAISALS
Pershing Square Building, 271 North Ave., New Rochelle, N. Y.
Telephone: NEw Rochelle 2-2066
Evenings, Sunday and Holidays Telephone: Pelham 8-0687



Many of our listings are twin-screw cruisers over 40′ — suitable for Coast Guard Reserve.

LIST YOUR BOAT WITH BLIVEN!!

CHARLES D. ROACH

Naval Architect and Marine Engineer

1500 S. W. 20th Street, Ft. Lauderdale, Fla., Telephone 2400

THOMAS D. BOWES, M.E.

Consulting Naval Architects and Engineers

Lafayette Building
Chestnut and Fifth Streets, Philadelphia

Lombard 0658 and 0659 *Cable* **BOMO**

WILL BUY — *Auxiliary Marconi Sloop*

Under 30 feet overall. Accommodations for at least two. Galley and lavatory. Vicinity Long Island Sound. Thoroughly sound ship by recognized architect and builder. Please send full specifications, location, and price. $1700 top. Photos will be returned. Reply Box No. 403, care of YACHTING, 205 East 42nd Street, New York, N. Y.

AUXILIARY CRUISING SLOOP

27′ x 8′ x 3½′ — Marconi, hollow spar. New Universal Twin 1942. Dinghy, outboard. Fully equipped for cruising. Sleeps two, room for third berth. Enclosed toilet. Excellent condition, sound and very seaworthy. Maintenance at minimum, no hidden expenses. Located North Shore Long Island. Write for price, description and photos. Reply Box 404, care of YACHTING, 205 East 42nd St., New York, N. Y.

WANTED

I desire to purchase a sloop of any well-known design, preferably similar to an Alden Coastwiser. Give all information, photo and condition, price in first letter. Reply Box No. 405, care of YACHTING, 205 East 42nd St., New York, N. Y.

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I am in the market for a small sailing yacht, from 30′ to 40′, good design and not too old. Will buy immediately if price and yacht is satisfactory. Reply Box No. 406, care of YACHTING, 205 East 42nd St., New York, N. Y.

WANTED

Auxiliary sloop or cutter, 32′ to 36′ l.o.a. Not over $2000. Reply Box No. 408, care of YACHTING, 205 East 42nd Street, New York, N. Y.

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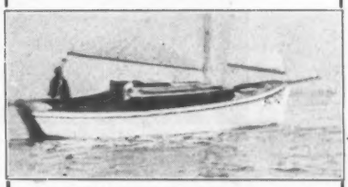

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ELCO NAVAL DIVISION OF THE ELECTRIC BOAT COMPANY • BAYONNE, NEW JERSEY

VOL. LXXIII
NO. 4

YACHTING

APRIL
1943

From a painting by Vernon Howe Bailey

Seagoing tugs in the fitting out basin of the Levingston Shipbuilding Co.

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AROUND THE CABIN LAMP

That Ain't Nothin'

▶ There's something about the spring that gets you. The water starts to get blue, and that makes you think of boats; and then, the first thing you know, you've got boat fever.

I had a bad case of it that spring. Every time I went out for a ride on my bike I was sure to end up at some boat yard. I haunted them! But what good did it do? Just watching other people work on their boats wasn't any fun. Not when you couldn't find a little boat that you could get for your own, and work on her yourself.

Then, one fine spring morning, I found myself in a little yard way up in the marshes at the head of our river. I'd no sooner opened the weatherbeaten door than I knew that I'd come to the right place. Here the boats were small and inexpensive looking; just my style.

"Well, Capt'n," said a little man coming out of his shop at one side of the building, "what can we do for you?" He was in his shirt-sleeves, wore a derby hat on the back of his head, and I took him right away to be the boss.

"Just lookin' . . ." I said, then somehow or other we got to talking together. He was a nice man that knew all about boats, and he seemed interested in a young fellow's problems, too. "H-m-m," said he after I'd finished telling him my troubles, "now let me see . . . Let's take a look over here in the corner; she may be just what you're lookin' for."

▶ At first glance, I was a little disappointed for she was old, dirty and pretty well banged up. But, looking the second time, and taking my time about it, I decided that she wasn't such a bad looking little hooker after all. A double-ender of some twenty feet, she had easy lines but plenty of beam and a good able look. Boy! I'd bet she'd ride a sea! Why, with her I could make it out to the black buoy sometime.

And look at that motor. Wasn't that a corker? Nothing stingy about that engine, or the size of the flywheel, either. Then last, but not least, there was all that brass trim. When I got that all ashine, she'd look like a million dollars. Yes, sir! She'd be handsome!

The boss, who was jabbing her bottom with the point of his knife looked up and asked, "How do you like her, Capt'n?"

"Pretty good . . . how much do you want for her?"

"Well, Capt'n," said he with a wink, "how much have you got?"

He was joking of course but, after we had talked confidentially for a while, I happened to tell him, and he said that he guessed it would be enough. . . .

▶ They say that struggle is the spice of life. That it's the thing that makes life interesting and enjoyable. Well, according to that, I must have enjoyed myself immensely getting my boat into commission, for I struggled from dawn till dusk.

My first struggle was with the Atlantic Ocean that persisted in flowing its tides in and out of my boat. She leaked along her seams, and along her keel, and particularly at the stem, and the skeg, and . . . I went looking for the boss.

"She sank," I told him.

"That ain't nothin'," said he, "any boat's liable to. Maybe she needs a little caulkin'."

She didn't need a little, she needed a lot and, of course, where she needed it the most was at the places hardest to get at. It was cold lying on my back in the mud, which spattered my eyes, oozed into my ears and gritted in my teeth. Well, never mind, a bale of cotton fixed her.

▶ Then, having made the hull tight, we had a struggle to loosen up the engine. That nice, big, husky engine was so frozen up with rust that I couldn't budge it to save my soul and I will frankly admit that, by this time, my soul needed a little saving. The head was some kind of a recessed one that I couldn't see how to get off, and the reason was because it was so rusted it all looked like one piece. In desperation, I appealed to the boss.

"Oh, that ain't nothin'," said he. "Better that way, anyhow; she'll never blow a gasket. Get a can of 'Mystery' oil and dump it down her priming cup."

I dumped in a can, then another, and another. "It's no use," I told him, "she won't move!"

"She won't, hey?" said he. "I'll move her!" And move her he did, with a jack between the flywheel pin and the keelson. "There," said he, "now all you've got to do is start her up."

Yes, that was all but, alas, it was plenty. You see, there were incidentals like gum in the gas tank, dirt in the feedline, and there was also that finicky igniter that wouldn't work with a busted spring.

Then, just as I was going to give it up, for my back was broken, what do you think happened? The motor spat!

"Ah-ha!" I cried, "she fired!" Blisters forgotten, I brought her up again. Pop — pop — *Bang!* (This last in the muffler.) Oh-oh! That sounded as if she blew. No, it didn't but there was something wrong for sure. Rubbing my sore wrists, I headed for the shop.

"Why, that ain't nothin'," said he. "Git her under way and regulate the gas; she's gitting too much. Maybe you've got the gas line so clean the carbureter don't know what to make of it." He shoved me off.

Puttitty-put-put-put — pft — Bang! She sounded like a cement mixer but kept going and, as the tide was under us, we dropped down river rapidly.

▶ As the wheel was forward, and the river winding, I had a devil of a time steering and fooling with the needle valve but, by jumping around like an eel on a skillet, I finally got her to hit — or nearly so.

Intent on making the last hairline adjustment, I stayed at the motor too long. We were now approaching the narrows where the river rushed between two rocky islands, and where a heavy work boat was anchored. I turned the needle valve the tiniest bit. The motor steadied and picked up speed.

Back at the wheel I put it over to clear the work boat, thinking I had plenty of room. Gosh! Just then we struck an eddy whose swirl made us slow to turn. In a flash I saw we were going to hit.

I had no time to cut the switch but, thinking I could shove the boats apart — as we were nearly going to clear — I leaned over the bow. I reached. I shoved.

Crash! The stem of my boat slammed end on into the heavy rub-strake of the other. The sudden stop shot me over the bow like a torpedo from the tube of a PT boat. I shot clear under the work boat and came up on the other side, blowing like a porpoise.

▶ My boat sheered off and, with what looked to me like a tremendous burst of speed, drove straight for the rocks. It looked like the end but — in the very last split second before the crash, she swerved. She missed the rocks by a bunch of sea weed and drove her length half out on a little sandy beach.

I heaved a sigh; struck out for shore. What if a four-knot current was taking me out to sea? "That ain't nothin'," I said to myself, and grinned. Didn't I have a boat that would float and a motor that would mote? What more could anyone ask for?

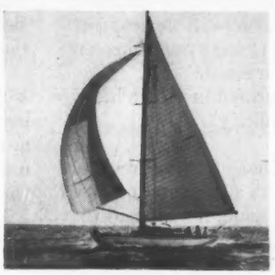
CARTER FILLEBROWN

THIS RACE IS FOR KEEPS!

There they go, America's famous racing boats. Manned by expert amateurs, fighting with all their skill to cross the finish line first. For what? For a silver cup, a new record, for love of the sea and the thrill of the race.

But that was yesterday! Today they sail in sober earnest. The trophies are U-boats or enemy destroyers. But these men are tough, and they're out to win. They know navigation, they can handle a boat in rough weather. They know where they're going, and if they get lost, they can find their way to somewhere.

America's yachtsmen were quick to offer their services and their experience to the Navy, the Army, the Coast Guard. Many are in the Merchant Marine. Daily they add to their fame and glory in this greatest of all races...because it is for keeps.



THE OWNER OF THE "CLOTHO" *is well known up and down the eastern coast as an intrepid skipper. Now he's on Navy combat duty. His duties are secret, but his skill and stamina are not. Wherever he is, he'll be right up front at the finish. In the meantime the* CLOTHO *is snugly cradled with us.*

JAKOBSON SHIPYARD, INC.

OYSTER BAY • NEW YORK

IN THE WIND

▶ Remember the crisp, succinct report of the blimp pilot — "Sighted sub, sank same" — that electrified us early in the war? Well, there's a parallel in that of an humble converted trawler's skipper whose ship could make about eight knots at the most but had nevertheless been armed with depth charges. . . . Encountering a U-boat one day, she let a couple of these ash cans go off her stern. . . . When the crew finally got into harbor, her gallant C.O. reported: "Sighted sub, sank self." . . .

▶ Latest *nom de guerre* — *The Kitchen Commandos* . . . Presumably a valiant group trained in breaking dishes without washing 'em. . . . How about *The Galley Guerrillas?* . . . From what I hear from some of my friends aboard the various types of patrol craft swarming along our littoral, the situation with regard to sea cooks is about as hectic as it was in the last fracas. . . . *Grub-spoilers* was what they used to call such goons on the prairie in the days when the West was Wild. . . . They cooked without fear or flavor. . . .

BOOMERANG

The Blitz has backfired
And now it's
But definitely
On the Fritz.

CALEB BILGEWASSER

▶ Incidentally, Caleb recently got a radio contract as a commentator to end all comment, including that of Gabriel Heatter. . . . With typical waggishness, Pundit Bilgewasser wrote me: "I have just joined the Air Farce."

▶ Ralph Wiley, my indefatigable correspondent and member of the famed Oxford (Md.) Group, has a secretary who signs herself "Blondie" and writes:

> "My father, when headmaster of a church school, once got ahold of the wrong list of names and whipped the confirmation class instead of the boys who had ducked chapel. . . . He claimed the results were good, anyway." . . .

▶ Will Zuill, now a member of the Legislative Council in Bermuda, informs me with some resentment that clippings of the flattering things I said about him in this compartment some months ago "have rained in on me from many points ever since." . . .

Whoever heard of a man in public life objecting to a leetle publicity? . . .

▶ The Newport-Balboa (Cal.) Press observed recently: "With Congress and forty state legislatures in session, it's too bad they don't ration applesauce." . . .

▶ Getting back to the matter of cooks and cuisine, it appears that although the Navy had a new cookbook as recently as 1940, another culinary tome has been written by one Ina S. Lindman, a dietitian loaned to the Navy for this purpose by the United Fruit Company. . . . Miss Lindman got $12 a day for editing "The Cook Book of The United States Navy," according to Representative J. William Ditter (R), of Pennsylvania, who was pretty irate about the whole thing. . . .

Dithered Ditter: "I do know I ate with the Navy long before Ina's time and we had palatable meals." . . .

Of course Congressmen, it must be remembered, rarely eat aboard anything smaller than a battlewagon where the chow is certain to be good regardless of the date of the cookbook. . . . Maybe "Dear Ina," as Representative Ditter frequently referred to Miss Lindman, has thought up a new way of preparing Navy beans — perhaps even Mulligan! . . .

The $12 a day part of the deal must sound rather intriguing to many writers of stuff which they fondly consider more enduring than the most eloquent recipes. . . .

▶ W. R. Severance, secretary of the Los Angeles Star Fleet, wrote in the February-March issue of *Starlights:* "It seems that, after the business of electing a secretary has been finished, everyone except the secretary settles down and has a swell time. . . . Is this a universal trait? . . .

▶ With that one pat of butter you're limited to at each meal now in clubs and restaurants, it seems only fair that you should get a pat on the back from Uncle Sam. . . .

▶ Plute Goodwin, C.O. of *SC 20* in '18–'19, has been remodelling a chateau for himself in his home port of Hartford. . . . It has a river view so I'm convinced that it won't be long now before he'll be acquiring a boat to fit into the vista. . . . His last was *Mermerus*, which he inherited from his uncle Charlie, when the latter succeeded to the ownership and command of the lovely and slippery Alden job *Golden Hind*. . . . The anchorage at Essex presented a brave picture in those happy days and the Dauntless Club was the rendezvous of a most salty crowd. . . . Them boneless shad feasts there was about tops for gustatorial joy. . . .

▶ There's supposed to be a ceiling on practically everything at this point but, so far as this myopic old scrivener can see, the sky's the limit. . . .

▶ What with all the gals *out* of uniform wearing those babushkas (scarfs to you) wound around their heads, and all the gals *in* uniform wearing regulation headgear, it's no wonder the milliners are fit to be tied. . . .

God knows, the hatters (for women) have always been mad — now they're furious. . . .

▶ I'm about to embark on a cruise in Long Island Sound any minute, believe it or not. . . . My good friend and classmate Drew Radel, the oyster tycoon of South Norwalk, has invited me to make a voyage with him aboard the flagship of his formidable fleet and I'm looking forward to it no end. . . . Drew knows more about oysters than Lewis Carroll and nurtures, among other famed bivalves, the succulent Robins Island variety whose hallowed beds he has guaranteed we are going to visit during the odyssey. . . . Vastly more interesting than any of the beds George Washington is supposed to have slept in, if you ask me. . . .

▶ Just to prove we're not letting the war interfere with our cultural development — an impression of Betty Grable's legs has been made for posterity. . . .

▶ Now it's the heart-breaking WAVES. . . .

▶ It'll be nice to be looking at a compass, instead of a ration card, for a change. . . .

▶ The lady who wrote that beguiling saga of life in the wilds of Maine, "We Took to the Woods," has been deluged with fan mail. . . . Says she, "The whole army of draftees writes me saying they can't wait for the war to be over to live as I live. . . . A guy called "Porthole Pete" showers me with notes and small presents. . . ."

Oh, yeah? . . . What makes here, anyway, Mr. Chamberlain, that you should be looking longingly at the tall timber! . . . Small presents such as what, by the way? . . . Galley stoves and other tiny items of marine hardware? . . .

The explanation of this generosity must be the *esprit de corps* existing between all natives of the State o' Maine whether they be seagoing or backwoods. . . .

▶ It's the tax that Congress puts on our patience that really makes us taxpayers mad. . . .

▶ One of the nicest things said about the late (and great) J. P. Morgan was that he loved to sail. . . . I wonder if the name *Corsair* was chosen for the Morgan yachts because of the possible sentimental interest the family had for the famed seafarer Henry Morgan, who happened to bear the same name . . . There were four *Corsairs*. The first, built by Cramp in 1880, was sold and became the *Kanapaha*. Mr. Morgan's father gave the second to his country for service in the Spanish-American War and she became U.S.S. *Gloucester*. At the battle of Santiago, she sank the two Spanish torpedo boats *Furor* and *Pluton*. At the time, she was under command of Richard Wainwright, later rear admiral, and it was a red hot fight. . . . The third *Corsair* was built in 1899 at a cost of half a million and saw service in World War I under her own name. . . . The fourth was one of the most magnificent yachts ever built. She cost two million and Mr. Morgan turned her over to the British Government early in the present war for a nominal consideration.

TELLTALE

THIS YEAR, "TURN TO" may be an order for the whole family. Many small repairs must be done without professional assistance due to present labor shortages — so get an early start and make a thorough job of it. If you're stuck, and need advice, if you're afraid of overlooking something important, ask your broker to arrange for a free Chubb inspection—and be sure!

And this is the time to think about renewing your yacht insurance for another year. In this connection we have prepared a little booklet entitled "THE ABC of YACHT INSURANCE", of interest to all boatowners. Write for your copy today; then, after you have read it, talk to your broker about yacht insurance. He can offer helpful suggestions to further safeguard your yacht as well as the welfare of your passengers later in the season. It is imperative this year that you make sure your yacht coverage is adequate for every eventuality.

Ask for Booklet T-10

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GRAY MORNING

Constant and unending vigilance is the keynote of all convoy operations. Here the officers on bridge duty tense to the signal of a distant destroyer

From a painting by Ensign Mitchell Jamieson, USNR

YACHTING

Volume LXXIII APRIL + 1943 Number IV

GET 'ER OVERBOARD!

**Regardless of Rumors, Regulations and Restrictions,
There is No Law Against "Messing About in Boats"**

NO GALLUP poll is necessary to prove that the Rumor Clinics have been experiencing a particularly active season, especially in so far as those free clinics which have been voluntarily established at most yacht clubs are concerned. If the statements of these worry-wardens were to be taken at face value, there is no denying that the summer's activities of the average yachtsmen are to be less than nil. They insist that there will be no gas for anyone, anywhere or at any time; that the Coast Guard has clamped down restrictions to the extent that you can't even launch your boat; or that, if you can, you won't be allowed beyond sculling distance of your mooring; that there will be special taxes of a prohibitive nature; and so on *ad nauseam*. Here and now YACHTING labels all such pessimistic utterances as pure bilge! Pleasure boat operation will be limited, to be certain, but — with few exceptions — restrictions will be no greater than they were last year.

Let's begin at the beginning and analyze the situation on its face value. Last season there were many boats which were not put overboard (particularly the big fellows) because of their owners' belief that such action would be unpatriotic. In the case of the larger boats, this action was commendable, for their owners promptly presented their vessels — either by outright gift or on loan — to either the Coast Guard or the Navy for active war service. This public spirited action is to be applauded. But the arbitrary laying up of the average small auxiliary or power boat is another story, as it is difficult to see what is to be gained by doing so (except in those cases where the skipper is in naval or military service).

With astute consideration of the physical rigors of a six-day or forty-eight-hour week, the Government has consistently stressed the need of a sufficient amount of the proper kind of recreation. This is not the time or place to preach the pleasures of yachting, but there is no argument to the fact that a day on the water — sans telephones, radios, priorities and tax blanks — is just about the best form of "getting away from it all" that has ever been invented. The proof of all this is in England where, with the operation of pleasure boats completely forbidden, an impressive percentage of Britain's small boat fleet is afloat. There the yachtsman now regards his craft as a week-end home, and swims, fishes or putters about to his heart's content, oblivious to ever-present mooring or docking lines.

As Ruth Brindze points out elsewhere in this issue, you can live on your boat this summer (and you may be sure that many will) and discover some of the pleasures of yachting that you never knew existed! There is little argument regarding the fact that your boat will benefit by being afloat during the summer months. It's all well and good to talk about that famous cutter which spent six years on the beach and whose bilge was cleaned with a whisk broom three

weeks after launching. That may happen with some boats but it doesn't go that way with most of them. Summer winds and torrid temperatures play havoc with the best of bottoms, and a canvas cover is no protection to the topsides if the temperature underneath is 90 in the shade!

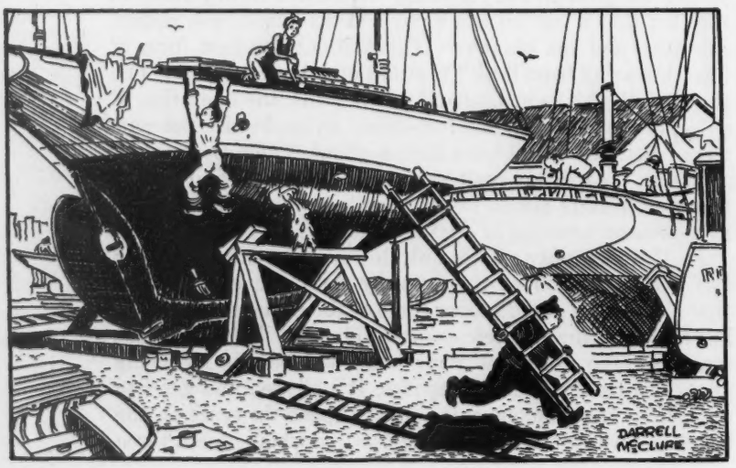
Are you going to have difficulty getting certain materials? You certainly are. Are some of the yacht yards going to be short handed and consequently slower in getting your pride and joy overboard? Most assuredly. But there is enough paint and other basic necessities somewhere in the neighborhood and, if you start looking *now*, we'll bet you can find them. Canvas, motors and electrical equipment are on the scarce list but, if you got along with them last season, why can't you do the same thing this year? As to the yacht yard; give him a break by telling him when you want to go over *now*, and we have a suspicion that your boat will be at her mooring within a day or two of the date you had in mind.

The case of the yacht club and its members presents an interesting paradox. In a word, most members seem to be waiting to see what their club is going to do about the coming season and *vice versa*. Well, someone has got to make the first move, and we suggest that you be that person. For, just as soon as a substantial majority of the membership says that they will be afloat, will be running up bar bills, and will be ragging the house committee — why then the Club will start doing its job. There may not be a launch, you may have to walk eight or nine blocks (you, who used to brag about playing 36 holes a day), and you may have to carry the butter in one hand and a water jug in the other — but where there is a will there is a way.

This will also be an excellent season to encourage interclub racing, particularly among the juniors. It doesn't make any difference whether you have a racing fleet or not, since one boat is certainly faster than another, as the first day's race will prove. And you will probably discover that your local flotilla of the Coast Guard Auxiliary (which has gas in legitimate amounts) will be glad to act as committee boat, course overseer and truant officer for the young ones.

Now as to that dire matter of regulations:

First, the all-important matter of gasoline. As of the moment, gasoline rations may not be used for non-occupational or recreational purposes in any part of the gasoline shortage area. Specifically, that area includes the States of Connecticut, Delaware, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia (except a portion which lies within the corporate limits of the city of Bristow), the District of Columbia, the portion of West Virginia which lies within and east of the Counties of Mineral, Grant, and Pendleton, and the State of Florida, except the area which lies west of the Counties of Gadsden, Liberty, and Franklin.



Superseding statements made elsewhere in this article, the OPA has just advised YACHTING *that gasoline will be available to pleasure boats in the "gas shortage" states. It is anticipated, however, that the quantities may be slightly less than last year.*

The regulation behind this ruling reads that: "No person to whom a non-highway ration has been issued for use with a motor boat or outboard motor for a non-occupational purpose, may use or permit the use of such ration for the operation of any boat in the gasoline shortage area other than for (1) family or personal necessity purposes for which no adequate alternative means of transportation are available, or (2) travel by naval or military personnel on leave or furlough, evidenced by duly issued leave or furlough authorization, for the purpose of visiting relatives or making social calls. Family or personal necessity purposes shall include (but shall not be limited to) procuring and transporting essential food and supplies. No such ration may be used for non-essential or pleasure travel which shall include (but shall not be limited to) the purposes for which pleasure cruising, guiding pleasure parties, and fishing, other than to procure fish as necessary food or for sale or processing: Provided, that if a boat is not otherwise operated, nothing in this paragraph shall restrict the use of such a ration to operate a boat in accordance with any requirements of the United States Coast Guard, the Coast Guard Auxiliary, or the United States Navy."

Regulations are now in force which further specify that: "If application is made for a non-highway ration for use with an inboard motor boat or outboard motor boat operated wholly or in part for non-occupational purposes within the limitation area or within any of the States of Georgia, West Virginia (partial), Ohio, Kentucky, Indiana, Michigan, Illinois, Wisconsin, Missouri, Iowa, Minnesota, North Dakota, South Dakota, Nebraska, Kansas, Washington, and Oregon, the Board shall not allow for the non-occupational purposes an amount of gasoline in excess of the number of gallons determined by the following formula:

(1) In the case of an inboard motor boat, the number of gallons equal to two times the manufacturer's rated horse power of the motor or motors, but in any event not more than 125 gallons;

(2) In the case of an outboard motor, the number of gallons equal to 2½ times the manufacturer's rated horse power of such motor, but not in excess of 20 gallons.

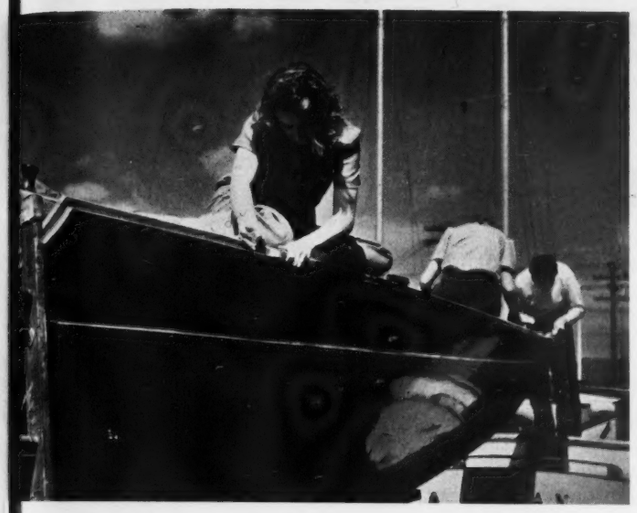
The board will in such cases, issue a separate book for such non-occupational purpose, containing coupons in sufficient number to allow the quantity of gasoline so determined, and shall note on such book that it is issued for a non-occupational purpose. For purposes of this paragraph, non-occupational uses shall include use of a motor boat or outboard motor for sightseeing, guiding pleasure parties, or conducting fishing parties other than to procure fish for sale or processing. The Board will issue the full amount of gasoline necessary for the operation of a motor boat for occupational purposes.

The regulations will also provide for the issuance of special rations for the operation of a motor boat necessary:

(1) To obtain necessary medical attention or therapeutic treatment, or to procure necessary food and supplies;

(2) To move such boat in connection with a bona fide change in the regular place of residence of the person entitled to the use thereof; or to return such boat to the regular place of residence of the person entitled to the use thereof on November 22, 1942, if the boat has been continuously away from such place of residence

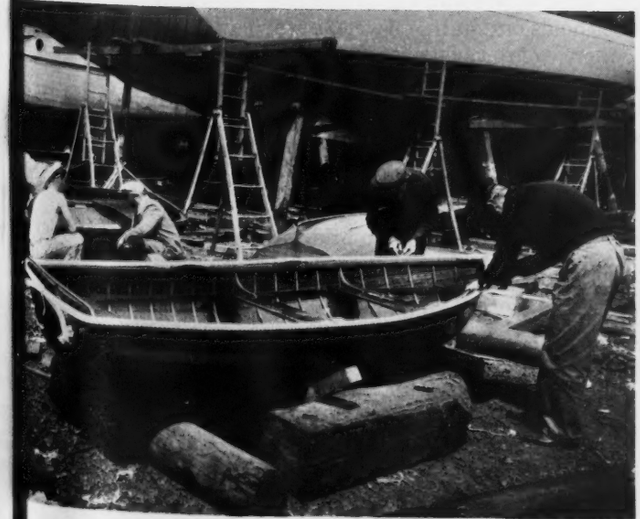
(Continued on page 90)

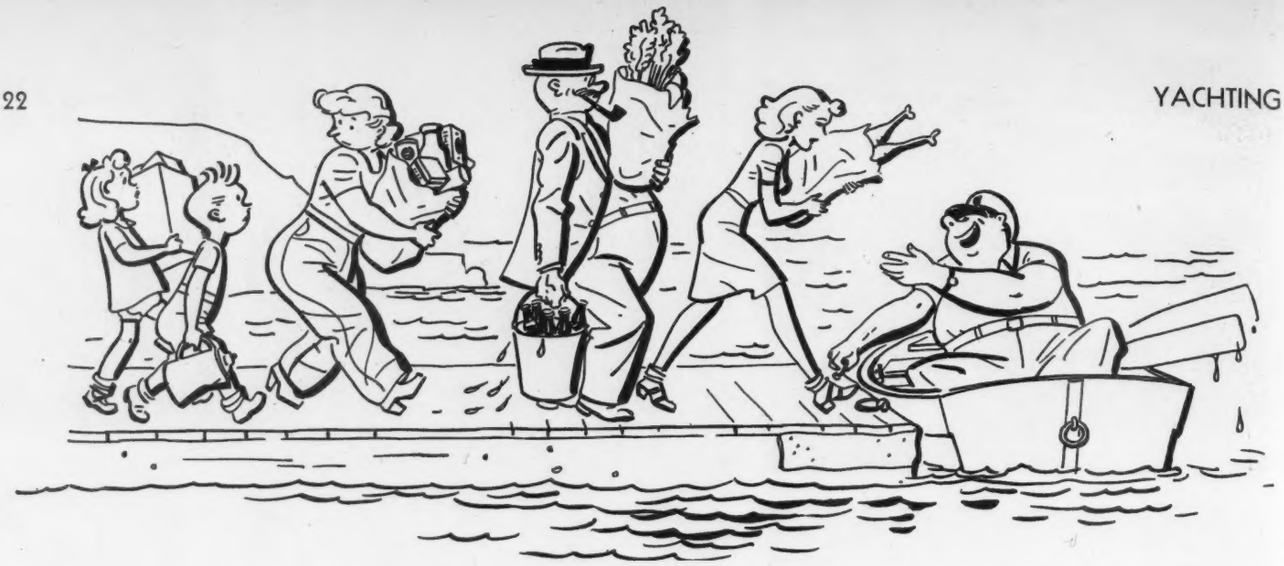


Rosenfeld Photos

SPRING

—and the Fun of Fitting Out!





LIVING ON BOARD

Even With Rationing — You Needn't Swallow the Anchor

By RUTH BRINDZE

THIS is the time of the year to start getting your boat into commission. You can feel it in your bones, and read it in the stars. Spring is here.

But this spring is not like any other in the memory of man. Everything considered, should she go in? There are arguments pro and con — dozens of them, but, after due deliberation, my vote is cast for the affirmative: first, because it is better for the owner and his family; second, because it is better for the boat.

For the time being, forget the personal element. Consider the second argument first, a procedure which the reader will discover to be the logical approach. Last spring (June YACHTING), Lieut. Rufe Smith wrote about the care of a boat immobilized by world conditions. His good advice, summarized briefly, is that a boat should ride out the season in wet storage rather than shored up in the yard. Damage may result if a boat is baked dry by the hot summer sun and Rufe wisely counselled that, even though a boat is not to be commissioned, she should be put into the water. This should be done not only if you love your boat and want to give her the care she deserves, but also to protect your investment in her.

But a yacht cannot be launched unless a coat, or two, of bottom paint is applied. Brightwork must likewise be protected and a coat of varnish is indicated. Then there is the problem of ventilation. The easiest way to keep a boat properly ventilated below deck is to open her occasionally, once a week or so, and let the fresh air blow through. Arrangements can be made to have this job done by the yard but, if the owner or members of his family are within striking distance, they will probably want to look after her themselves. In fact, with the boat in the water, the chances are that the owner, and/or the family, will find it mighty pleasant just to sit on board. This leads to one further step. If the boat is an auxiliary, she will lie more comfortably at her mooring with her stick stepped, since she was designed to have the weight of the stick forward.

In other words, once you decide that for the good of the boat she should be put into the water, you are about half a step away from full commissioning. And, having gone so far, it is hard to think of any good reason for not taking the extra half step. Even without gas, an auxiliary can be used (except in certain restricted areas) for the wind will always remain free and unrationed.

A crystal gazer might have some encouraging words to offer the motor boat man but, for those who cannot foretell the future, the sensible course seems to be the pessimistic one. Let's assume, then, that in some parts of the country small boats will get no gas and that power boats and auxiliaries whose skippers and crews are in service will lie at their moorings for the entire season. In effect, they will be houseboats. And what's wrong with that? Even in the days when you coasted in to the gas dock and said: "Fill'er up," the majority of power boat skippers did not chase back and forth, burning up the gas. Many of them stayed put and, if this year a boat cannot be moved at all, that has its compensations too. For one thing, insurance, which is a major item of yearly upkeep, may be sharply decreased if the yacht is to lie at her home mooring for the entire season.

Well, having decided to put the boat overboard, and then to get afloat yourself, the question is how to make it a good season.

First of all, how will you get down to the boat, restrictions on driving being what they may be. In some instances, it may be necessary to change your home port to make commuting to the boat possible. Some yachtsmen may solve their problem by moving their boats nearer their work. Sort of the trailer idea. But, so long as trains and buses still run or the rubber holds out on the bicycle, a way can be found. After all, there were yachtsmen long before there were automobiles.

Now that you have arrived at the club float, how are you going to get out to your boat, for this year there may be no club tender. If for one reason or other the skipper cannot keep his dinghy tied up at the float and row himself out, the problem may be solved by coöperative action. Many clubs have already made arrangements to bridge the gap between shore and boat. The method depends largely on local conditions.

All of this, however, may sound like a good deal of trouble, especially if an entire family must be moved back and forth on the single day a week when the skipper gets time off. The

answer to this question has already been suggested. Treat her like a house on a keel. Instead of going down to the boat once a week, or for the week-end, leave the family on board for the season, or for part of it. Most modern power boats and auxiliaries are compact and comfortable homes and their use as summer residences offers many interesting possibilities.

From the point of view of the hard working man, it has the advantage of assuring cool evenings afloat instead of stuffy ones ashore. A dip over the side to wash away the grime of the city, a cocktail, dinner, moon and stars — it sounds idyllic and it makes sense. The plan is good any time but particularly good for wartime living. It's economical and easy.

The domestic help situation is bad but that need not trouble the mate who is living on board. Housework at home may be a chore but keeping a boat shipshape is comparatively light, not only because a boat is smaller but also because life afloat is simpler than life ashore. Laundry practically takes care of itself, since bathing suits are the order of the day. Obviously, expenditure for summer wardrobes can be held to a minimum and such restrictions as the one on shoes are unimportant. The mate and the children won't use 'em and neither will the skipper after he has been piped on board.

The food problem is likewise eased. The skipper may have to bring home the bacon but a large part of the family's supply of protein foods should be hauled in over the side. So long as there are clams to be dug and fish to be caught, the size of the meat ration is nothing to worry over. As a matter of fact, the possibility of supplementing the weekly ration with a mess of fresh fish is in itself a good reason for getting afloat. Many people who were disinclined to fish in the old days are going to find it profitable this year not only to fish but also to cut bait.

Of course, living aboard entails problems of its own. If

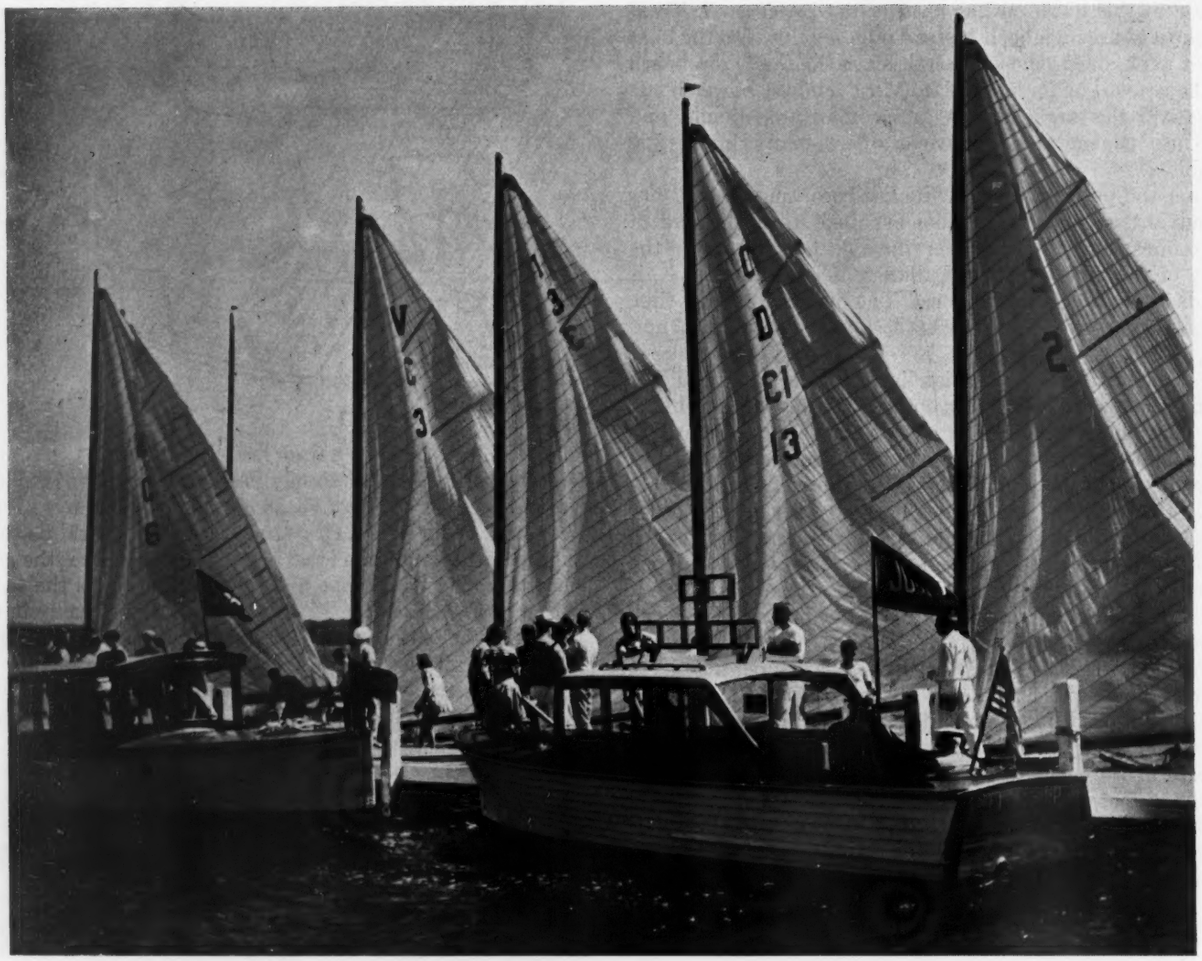
a boat is not to be moved from her mooring during the entire season, the fresh water supply is something to think about whether you intend to live aboard for the summer, for a week-end, or for a day. Of course, the tanks should be thoroughly flushed and then filled before the boat leaves the yard since this may be the one and only chance to fill the tanks with a hose. Thereafter, it may be necessary to carry in the water. But even this is not so bad once you get the hang of it. As a matter of fact, the owners of many cruising boats with small water tanks have always made it a practice to carry a couple of gallon jugs, one in the galley and one in the toilet room, to supplement the regular supply.

But to provide a daily ration of water it may be necessary to row out half a dozen gallons each day, part to be used from the jug and part to be added to the tank supply to keep up its level. This is a chore that can be handled in any one of a number of ways. One member of the crew may be assigned to act as water boy and his daily job may be to bring out the water in gallon jugs which have the advantage of being easily handled. Or the members of a club may get together and equip a water boat. An able skiff, two or three clean five gallon cans, a pump with a long enough hose to reach the tanks of the boats to be serviced is all that is needed to set up a private water system. A pretty penny might be earned during the season by an enterprising youngster or by a club which sets itself up in the water business.

Fuel to keep the lamps burning and fuel for the cook stove are among the supplies which are harder to come by because of the war. In March, alcohol was still on the unrationed list and the supply appeared to be adequate, but any one's guess is as good as mine on future conditions. The E. J. Willis Company, of New York, whose Hi-Heat alcohol has kept many a pot boiling, now reports that the fuel can be obtained in five-gallon drums. Because of the can shortage, one gallon containers are no longer available. However, if past experience indicates that five gallons is more than is needed, a buyer can undoubtedly make arrangements with a fellow sailor to share the supply.

Kerosene can be obtained only by the presentation of ration stamps. To obtain these, you fill in "Form OPA R-1103" which, although drawn up without a thought for yachtsmen, covers their needs rather completely. This form is intended for the rationing of kerosene for cooking and lighting and for agricultural use such as the operation of farm vehicles and machines. However, there is space on page 3 for the yachtsman to list his estimated gallonage requirements for a three months' period, the estimate to be based on consumption during the same period last year. Several lines are provided on which owners who plan to live aboard this year can explain why they may be asking for more kerosene than was consumed in the 1942 season.

(Continued on page 92)



When gasoline rationing does not interfere and the waters are not restricted for military purposes, boating should be carried on as usual. Scene at the Lake Geneva Y.C. dock during an Inland Lake Regatta

GET AFLOAT THIS SUMMER!

By CAPTAIN STEPHEN S. YEANDLE

District Coast Guard Officer, St. Louis, Ninth Naval District

GASOLINE rationing, restricted areas and a limit on canned goods. . . . No ordinary spring, this. Many yachtsmen are pausing to weigh possibilities of life afloat the coming season. Boating conditions have changed — and perforce. But there is no changing spring and that same old restless urge for the boat yard, its tangy smells and soul-satisfying activity, and the desire to get under way again. Let the yachtsman who feels boating may be prohibitive this coming season consider the times. Nearly every other phase of life has been affected by the war. Food, clothing, automobiles — even the livelihoods of millions who are now in armed service or in new jobs — are vastly, and necessarily, different today.

But never has there been greater reason for getting the old hooker rigged and in the water. Everyone is doing double duty these days, working and straining to the utmost, doing his part to win the war. The few hours that yachtsmen will be able to spare to let go moorings, to get away and relax aboard their vessels, is health insurance paying highest dividends. Wind, sun and the soft slap of waves on the bow — anyone with a boat knows what this does to take the kinks of overstrain or worry out of a busy week. I am a firm believer in the value of yachting in building up manhood, unselfishness and alertness.

The few hours afloat in the week are every bit worth the effort of getting the boat in the water under these changed conditions. The OPA has recognized this in allowing gasoline for motor boats in a strict rationing program. Although the 125 gallons for inboards and the 20 gallons allowed outboards each three-month period will not permit cruising on a scale comparable with other years,* the limited hours most boatmen will be able to spare will find this budget not too restrictive. Many a cruiser will go down the ways with a rebuilt job instead of that new motor. Gear may be replaced by used parts from about the boat yard, and a goodly number of sailing yachts will carry their same standing rigging and a patch on the mainsail. Boating, like everything else this year, will be trimmed to the war effort; nevertheless, it will take its place in the lives of its devoted followers.

A great majority of boat owners have more than compensated these wartime changes with a new interest which

*See page 20 for further information on gasoline rationing — Ed.

(Continued on page 76)

SPRINGTIME TUNE-UP

Part I — The Electrical System

By H. AUSTIN MURRAY

CHARLIE MARTIN was one of those fortunate individuals with the wherewithal to own the most expensive model of a well-known runabout. This boat had a beautiful engine of 275 hp. which made her the fastest one in those waters. But this engine, after a few years of service, began to show signs of aging and wouldn't develop her rated power or speed.

Several friends offered suggestions and a few of them began to tinker with the engine, only to make matters worse. Charlie then consulted Sam, an automobile mechanic who, without hesitation, said he was sure the engine needed a "valve and carbon job" and a complete overhaul, too — including reboring the cylinders, new pistons, rings, etc. Sam also said he was sure "the gasoline ain't no good, anyhow." I was sent out to find out exactly what was wrong with the fuel or otherwise. Since all the other boats using the same fuel were running perfectly, it appeared that perhaps the engine needed some kind of attention. I set out to find out what was wrong with the engine and, after a half day's work, this is what was found: two defective coils; oil soaked condensers that shorted when tested; weak spring tension on breaker arms, letting points fly apart at high speeds; old, worn out plugs; and a carburetor that was badly out of adjustment. Compression and vacuum tests showed the valves and rings to be in good condition and far from needing an expensive overhaul.

The defective parts were replaced, the engine tuned up in general, and various adjustments put back to the original, manufacturer's recommendations. Charlie's engine was most appreciative and, to his surprise, developed the same power and speed as when new — and with the same gasoline, too.

This example is typical of many others which I have been drawn into and suggests that perhaps we can profit by an exchange of ideas on keeping our engines running sweetly with the least expense and effort. I don't mean to discredit Sam or any other mechanic who can put his finger on the cause of engine trouble and repair it. However, the recommendation for a "valve and carbon job" or "complete overhaul" is made too many times, whether an engine needs it or not. This "valve and carbon job-itis" is a hangover from the old days when valves wouldn't last 100 hours, but certainly doesn't apply to modern engines. The purpose of this discussion on engine tune up is to outline the latest methods available on engine maintenance. There is also a simple method of finding out the condition of valves without letting a mechanic tear your engine and your pocketbook apart — only to find that the fuel pump was not working properly.

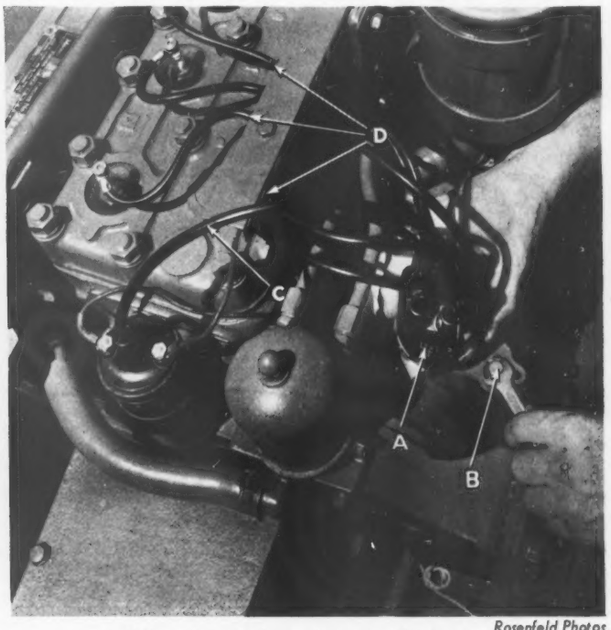
Particularly under present conditions, there is no point in getting stuck for expensive overhaul when you can do most of your engine preventive maintenance work yourself. Then, too, this discussion may help those who can't get a mechanic and find it necessary to maintain their engine personally.

It may not be necessary to go over every point given in the following each year. It depends entirely upon how many hours your engine was used last season. The complete story is given for those who find it necessary to go right down to the bottom and work up from there.

Electrical System

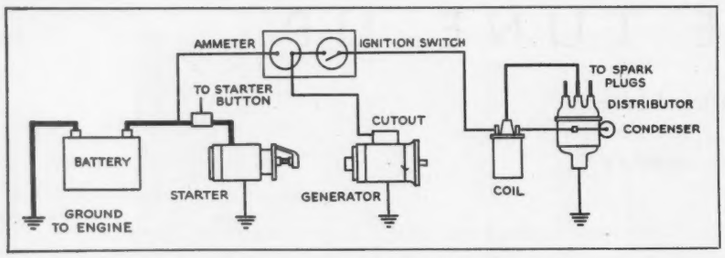
During the spring fitting out, the logical sequence in painting always seems to indicate first the varnished brightwork, topsides, boot top and, last, the bottom. In tuning up your engine, there is also a similar logical approach. This consists of going over the electrical system first, particularly the ignition system, taking in each item from battery to spark plugs. After being sure that everything is O.K., the carburetor may be adjusted. To reverse this procedure may

Adjusting the breaker point gap with a thickness gauge



Shifting the distributor for timing the ignition

Rosenfeld Photos



A typical wiring diagram of engine circuits

wind you up in hot water, particularly because it is well nigh impossible to adjust the carburetor with any cylinders missing.

Battery

Everyone who cares anything about his boat probably removed the battery and arranged to keep it charged during the winter. After a definite period of time, all batteries deteriorate and finally become so aged that they just won't hold a charge. If you want to find out whether your battery (or batteries) are good enough for next season, ask your batteryman or yard to "load test" it for you. Furthermore, it doesn't cost anything. This is a simple test where a heavy current drain (about equal to the starter current) is placed on the battery for perhaps 20 seconds. A separate voltmeter is hooked onto each cell before making the test to show the exact voltage drop. A weak cell shows an abnormal voltage drop, and no amount of charging will correct it.

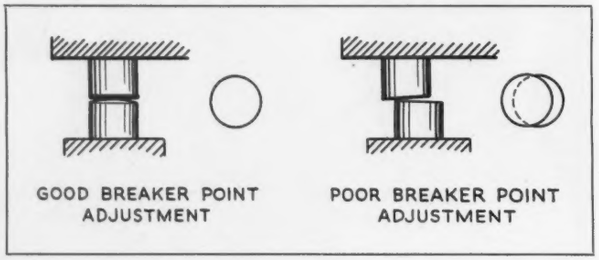
First, your battery should be fully charged. Clean the terminals and battery cable connections and apply a thin coating of cup grease. The grease effectively retards any corrosion and chances of a bad connection. Be sure that cables are good and tight and, before going to the next point, better check up and see if you made the right connections. Snap on one of your lights and, if you find a *discharge* reading on the ammeter, all right; if not, reverse the connections.

Maybe this is a good time to look over the electrical system and see what improvements can be made. One prominent marine engine builder stresses the importance of using the shortest possible starting cables. This company points out that it is not unusual to find as much as 22 feet of undersized cable running from the battery amidships forward to the toeboard switch and back to the starting motor. Long cables rob your engine of the necessary energy for good starter performance. The most satisfactory installation is to use an electric solenoid remote control switch.

Don't forget to put a battery hydrometer aboard. It is a great thing to test your battery during the season. Check it regularly and don't forget to add distilled water as needed.

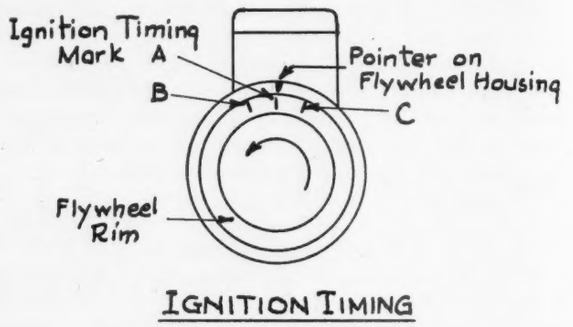
Distributor

After the battery should come the distributor. This unit contains two separate circuits, the primary and secondary or high tension. The primary circuit contains one or two pairs of breaker points, with one or two condensers. The secondary circuit consists of the rotor and cap which "distributes" each spark impulse to the proper cylinder.



Breaker points must meet squarely

When a pair of breaker points is closed, the current flows through the primary coil windings, building up the magnetic field in the core. At the instant the points open, there is a sudden change in this field which induces a surge of high voltage current to flow from the secondary windings to the distributor and back to the proper spark plug. It is like stretching a rubber band and suddenly letting it fly. The whole secret of good performance here is to break the contact quickly and cleanly. If points are dirty and full of craters and peaks, the break may not be clean cut, and the current tapers off, something like slowly releasing a rubber band — it won't fly far.



Mark the flywheel when checking the timing

This may seem rather academic but, unless the distributor is properly cared for, nothing you can do will give you good ignition performance and a nice running engine. So here are a few ideas that may help you.

Ordinarily, it is a good idea to replace breaker points or re-dress the old ones if you have used your engine for over 200 hours since last season. If the distributor is accessible, it isn't necessary to take it off the engine for this purpose. If it isn't, don't try to be a contortionist and stand on your head — somehow, you just can't get that delicate touch in such a position. Don't hesitate to take off the whole unit and clamp it in a vise where you can do a really good job. However, don't yank it out before placing a few marks, or you'll surely cuss me plenty when you have to re-time your engine. Mark the base of the distributor, and place a similar mark on the crankcase. Also mark the position of the rotor on the rim of the distributor body.

If you are planning to re-dress your old breaker points, it might be a good idea first to test the spring tension on the movable arm. This is important on some engines, particularly the 8-cylinder models with an 8-lobe cam in the distributor. Too weak a spring tension allows the movable breaker arm to flop away from the cam, upsetting the whole sequence of the primary circuit; an engine just lies down when this happens. Weak spring tension here shows up at high engine speeds particularly. The minimum tension is about 18 oz. for most distributors. Perhaps you can borrow one of those little gauges if you believe the tension is questionable.

Next, remove the points and dress them down with a fine file. Don't try filing them in place; it does a sloppy job. After reinstalling the points, make a preliminary gap adjustment with the breaker arm on the nose of the cam. Refer to your engine manual for correct gap adjustment. On most 4- and 6-cylinder engines, this will be from .018" to .020". Next, close them and see if they meet squarely. Bend the movable arm so that they both mate squarely. Finally, set the proper gap opening. At this point, you had better take a look at the condenser.

(Continued on page 72)

SPEAKING OF CHARTERS

If You Don't Own a Boat, You Can Charter — At a Price to Suit Your Pocket

By HARDY LEE

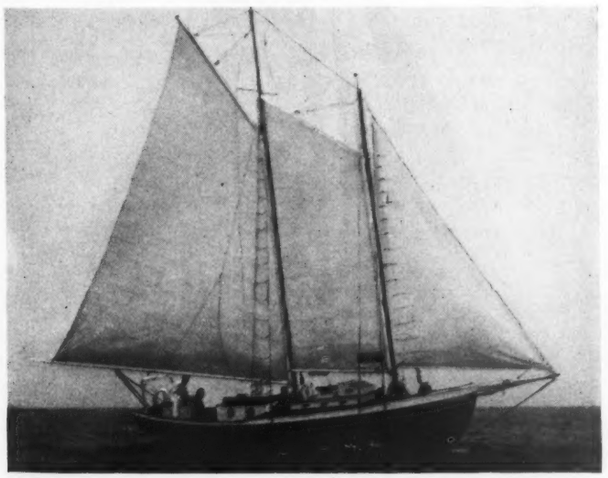
IF YOU are still plutocrat enough to own a good auxiliary cruiser, you will probably skip this article unless, what with the high cost of maintenance and pinch of taxes, you are thinking of chartering for part of the season to defray costs. Then you might dip into the subject to see whether there's anything here useful to you. If you are one of that ever-growing group of yachtsmen, salty by nature but beached by poverty or geography, you will find here matter for reference or argument — all according to your taste or experience.

Even if you have the money to buy a yacht, perhaps common sense suggests a charter because you have only a certain specified time in which you can use a boat, namely, the time the boss sets for your vacation. No matter why you do not own a boat, your chance to indulge in your favorite sport — and be captain, too — is to charter.

If you are the careful planner who tries to make sure of things well in advance, you will try to effect a charter in May for the July or August vacation. You argue that you have the whole field to choose from then and will avoid the risk of getting no boat, or perhaps one you don't care much for, at the last minute. You're both right and wrong! The field is there, you'll have a grand time running down the leads your broker gives you, poking around muddy shipyards, climbing ladders to creep under dirty canvas covers and peek at all sorts of boats shrouded in dust and cluttered with gear.

Your first problem turns out to be that, while the field is large and several trim craft appeal to you, the owners prove to be too cagey to let you have the boat for the last week in July and the first week in August. That happens to be the one possible time for you but, with visions of some affluent customer seeking a charter for a month or more, they turn you down because a commitment to you might conflict with the time conceivably demanded by the mythical sea-going Croesus. So probably the craft you wanted most is scratched off your list and you settle on a compromise with the feeling that the question of being sure of a suitable boat is clinched.

As the time draws near for the realization of your vacation plans, you assemble your personal gear in high anticipation. When the appointed day dawns, all you'll have to do is to go aboard, stow your duffel and let go the mooring. That's what you think! You may be right if your charter is the only charter which the owner has arranged for. It worked that way for us four summers back when we took a small Down East schooner with gaff rig.



This 38-foot schooner proved to be easy to handle

She was a fine craft in half a gale, but in Long Island Sound weather she averaged about two knots and, while close-hauled in light air all night between Port Jeff and Horton's Point, turned up at dawn about 25 per cent of the distance made good to leeward of her objective, or 'way over near Cornfield Lightship. When we saw her in the spring, before she was fitted out, we were assured that the mattresses were new the previous year, but washboards, however new, are no comfort to tired backs. These, and a few other reasons such as a bridge deck between the galley and the main cabin which managed to crack our heads regularly, and a much touted "open fireplace" (quite needless in August) which prevented stretching full length in the port bunk, may be why there was no other charter. The next time, we were more discriminating about the packet we picked.

We had a fine cruise in this gaily painted ketch

Next year's choice, made so efficiently in the early spring for surety's sake, was a fine plumb-stemmed, gaff-rigged cutter, about 35 feet over all, with everything we wanted for comfort and potential performance. But it seems that others thought just as well of her. In fact, they chartered her. The broker called us up four days before it was to be our turn and broke the news. Something was "kapoot" in the motor; it would not be fair to us to let her go out that way; proper repairs could hardly be guaranteed in the time available. Would we consider a substitute upon return of the deposit?

Vacation plans seemed to hang by a slender thread. There was no time available to search for another boat. The broker, fortunately, produced a prospect moored as handy as City Island. So, after work, on a sweltering July evening, we went out on a subway local, saw a most interesting 34-foot Marconi ketch with everything one could ask for above and

A boat like this stock cruiser may at times be obtained on charter

Rosenfeld Photo

below decks. It was a deal, right then and there. Because of a pressing engagement, we went ashore in a 6-foot dinghy in our shore clothes, under an umbrella in a drenching thundershower — like a comic sketch of landlubbers at sea!

Such hasty selection proved most satisfactory on the whole. To be sure, we did not see well enough in the lightning flashes to observe that she was a bit under-canvassed. In light air, she was decidedly sluggish, but she had character and comfort — even a cushioned seat with high back-rest for the helmsman — and gave us two weeks of excellent sport in Narragansett Bay, Block and Long Island Sounds.

Two years ago, we chose and chartered a 34-foot Marconi sloop in May — still obsessed with the idea of being sure of starting at a fixed date with a satisfactory ship. We congratulated ourselves upon our foresight for inquiring about other charters which might upset our plans. This time, the owner made it clear that he wanted just this one charter, the money from which would offset his insurance and fitting-out costs besides defraying part of the expense of the nice new stainless steel rigging just installed. We even corresponded a few days before our time approached to arrange for delivery of the boat at New Rochelle instead of Milford, where she moored. There was no hint of anything amiss. Then came the pay off!

It was just past midnight on the eve of our departure. The foyer of our New York apartment was full of duffel bag, pack of charts, cartons of groceries, and a few bottles. We had just dropped off to sleep in serene anticipation of the morrow and the beginning of two marvelous weeks aboard the fine little yacht of our choice. The harsh jangle of the telephone jarred us into a startled sensing of doom. Right! Mr. Owner speaking. "Awfully sorry, but the people who just returned yesterday from a charter cruise left her with a broken timing gear in the motor. She's in Milford. The nearest parts are in New York."

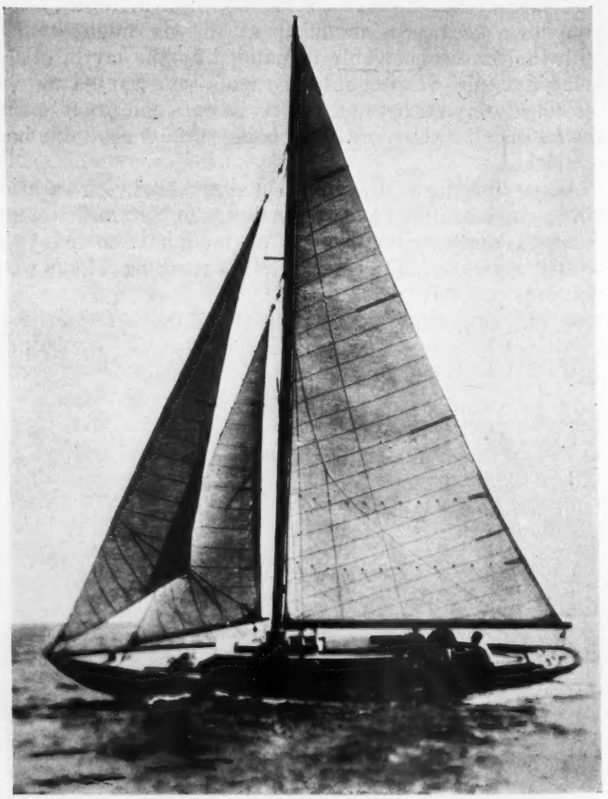
This, of course, was the first time we knew that there was another charter on that craft. We had thought all these weeks that we were getting a yacht fresh from the owner's tender care. Right then and there we repaired to the foyer and broke out the wet goods for solace. Eventually day dawned.

Time was precious. The first day of vacation had really begun. It was Saturday — no time to get business results in the summer. Better stick by the ship and try to see it through. Others might be had, but it was too big a chance to risk vacation time looking for them. So, what with telephoning, messengers, hired cars and expense — to say nothing of a little sweat and a sprained vocabulary — we reached Milford, 65 miles away, about 2:00 p.m., with the parts. Mechanics, who had been virtually lashed to the mast so that they wouldn't get away, slowly went to work while we perched on deck in the broiling sun with our duffel and most of the cabin fittings piled about us. The hours wore on. At 2:00 a.m., the night shift knocked off, having finally done the job. All we had to do was clean up what the grease monkeys left below, put the cabin together and try to get some sleep. There was an adjustment of charter fee for the lost day — but the day was still lost to us.

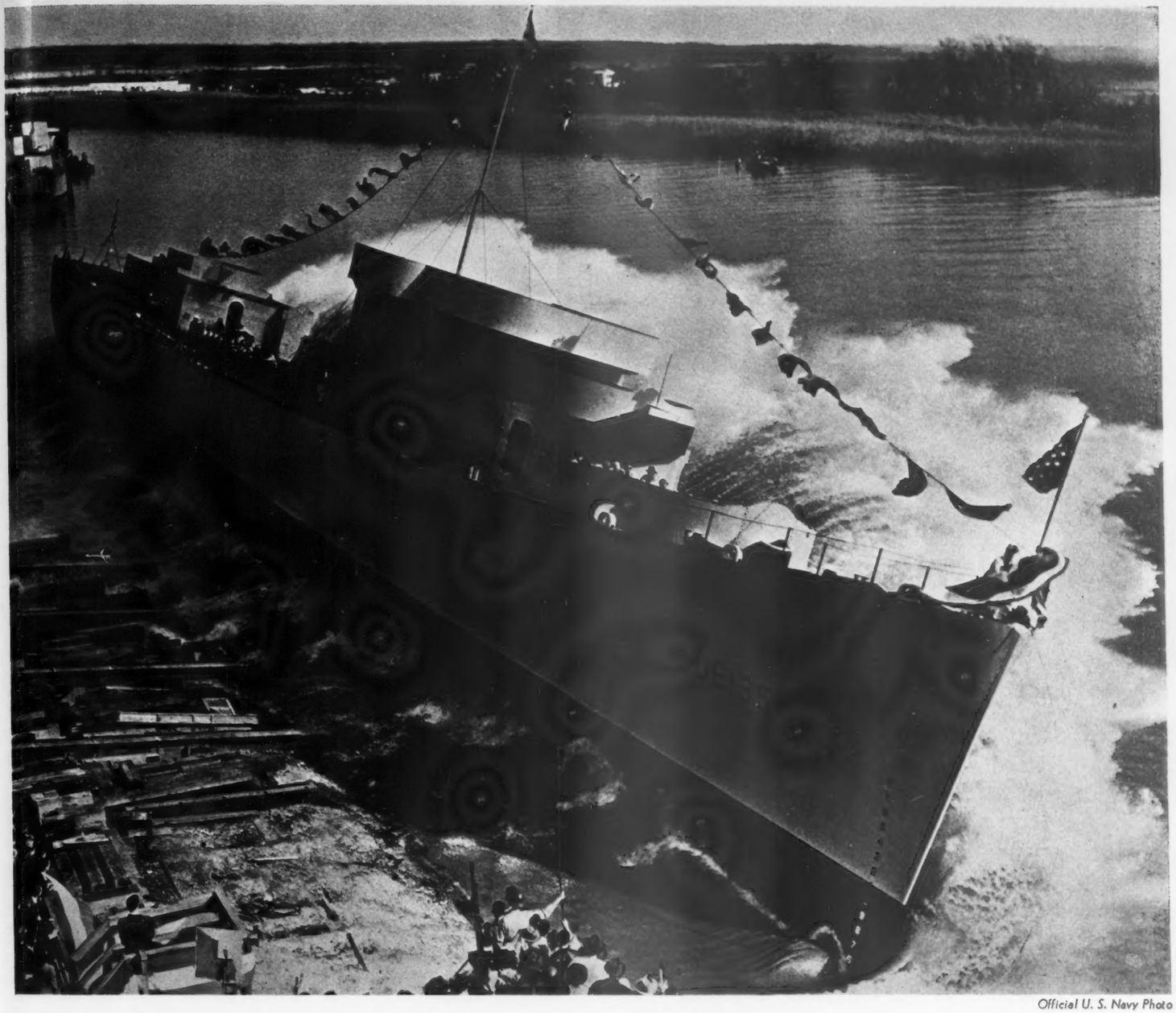
By now, you'd think we would have learned that chartering well in advance is not so good. No such thing! Early last year, our broker steered us to a man who had just bought a roomy 40-foot ketch. He still owned another boat which, until he managed to unload her upon some eager soul, cramped his financial style. This one charter would be just the thing to ease his predicament and, besides, we could put in Sundays in June helping to fit out and thereby cut more expense for him, while we enjoyed working around a boat. It turned out that Mr. Owner liked to have a crowd around to help him drink beer and admire his ship while resting between spurts of sandpapering. Anyhow, in late July, three days before our big moment, there was in place neither main boom, nor sails, nor running rigging. The motor had been turned over but not given a trial run. The clutch was inclined to be temperamental. Protests were of no avail. Complacency reigned on the quarterdeck. A few hours of evening work would finish the job, *maybe*. We were told not to worry. We didn't. We quit! And thereby sacrificed the deposit rather than risk losing valuable vacation days.

Once more it was clearly demonstrated that there are fine charters available at the drop of a hat. The broker did a bit of telephoning, lined up three boats for us within an hour, and secured the owners' agreements to do business if we

(Continued on page 81)



We chartered this fine 38-footer and used her as long as we could have had we owned her



Official U. S. Navy Photo

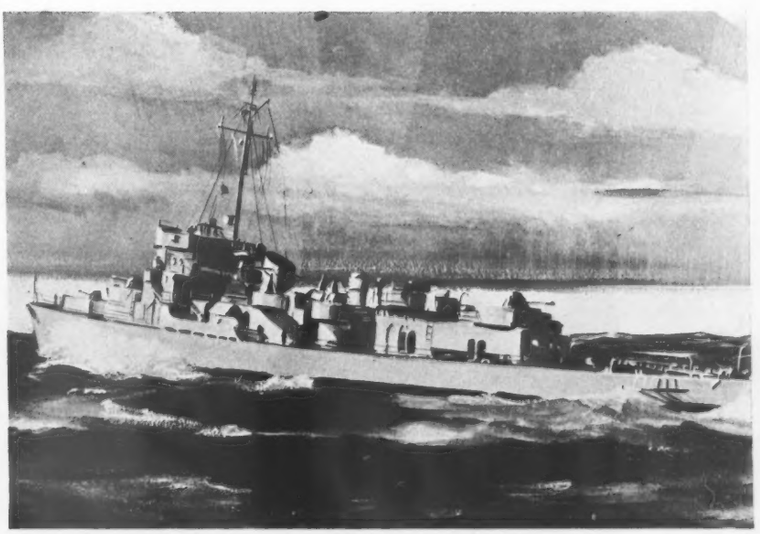
"DE"—DESTROYER ESCORT

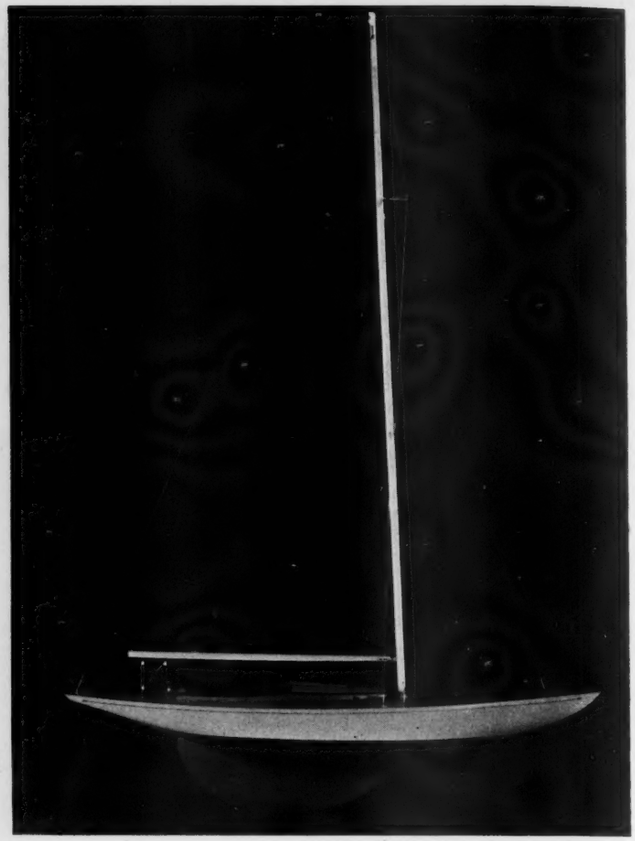
The newest type of ship in the United States Navy is the destroyer escort, especially designed for the job of convoy protection. "She's smaller than the modern destroyer, is built of steel, and carries weapons against aircraft and submarines," is the Navy's description of these escort vessels which are now being built in large numbers by yards throughout the country.

The first of these DE's are now in service. Others have been launched and are fitting out for service at sea. The destroyer escort is larger than a corvette and somewhat smaller than a destroyer. She is more powerful and effective than a corvette, but lacks some of the destroyer's power, speed and armament. However, she is fitted with both torpedo tubes and depth charges.

DE's will be constructed in two sizes; one type is slightly more than 300 feet long, the other slightly less. Beam is 35 to 36 feet. Diesel-electric, turbo-electric drives, geared Diesels and geared turbine engines are used for motive power in the first group of vessels.

More than a million and half horse power in General Motors Diesel engines is being supplied to power an important percentage of these new vessels.





Top, even a scale model shows off the International's fine points. Note the delicate counter which is almost a trademark of the Norwegian designer-builder, Bjarne Aas. Left, to simplify the wartime crewing problem, spinnakers are out for the duration. Bottom, few are the week-ends when the Sound fleet doesn't engage in a skirmish. Rosenfeld Photos

APRIL, 1943

THE INTERNATIONALS

The Internationals Form One of the Most Outstanding One-Design Classes of Recent Years and Thereby Hangs a Tale

By CRITCHELL RIMINGTON

"ONE-DESIGN CLASS. Is that class of which each boat is an exact duplicate of the other — in construction, materials, sail area, rig and equipment. *1, rara avis nautica.*"
— F. Neptune's Dictionary.

IT may be stated, with some authority and considerable trepidation, that of all the terms associated with yacht racing, "One-Design Class" is that one which has caused more heated oratory and tearing of hair than a full season of protest flags.

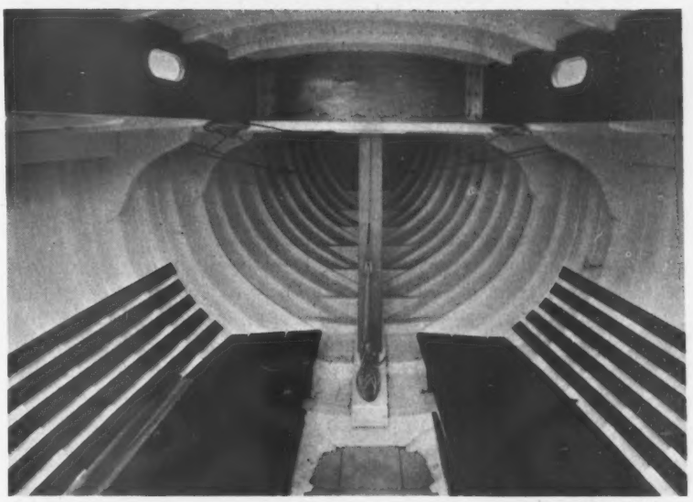
As against the many famous classes, such as the New York "30's", The Sound Inter-Clubs and the Victories, which are One-Design in every sense of the term, there have been countless others which started out with the best of intentions only to wind up as a class of "57 varieties". It cannot be said that it is the fault of the designer for, if the truth were known (or I should say when the truth *is* known), the much maligned designer rarely has much to do with it. To be sure, he designs a boat — and probably a good one. Then the steering committee adopts the design (after suggesting and/or rejecting an impressive number of ideas and recommendations). Subsequently, after much debate, it selects a builder. At the outset, this harassed gentleman is informed that he will be the sole constructor — now and in the future — and that, as a logical consequence, all boats in the class will be exact duplicates of each other.

The first fleet is launched and, following the minor changes in rig which are an inevitable consequence of an initial season, the class specifications are then made final (presumably protected by the association's fixed rules and regulations). If all goes well, and if the association allows no variation in builder, construction or rig, the class prospers and adds another pleasant page to yachting history. But if, after the first few summers of racing, the class representatives lose control of the fleet's destinies, and allow boats to be built by various builders who are in turn forced to incorporate notions of individual owners, then the class degenerates — in so far as its true "One-Design" classification is concerned — in all but name. There are too many instances of this sad state of affairs to draw a moral, other than the fact that yachtsmen everywhere can be counted on to throw their hats in the air when a one-design class survives the first few years and truly retains its original characteristics.

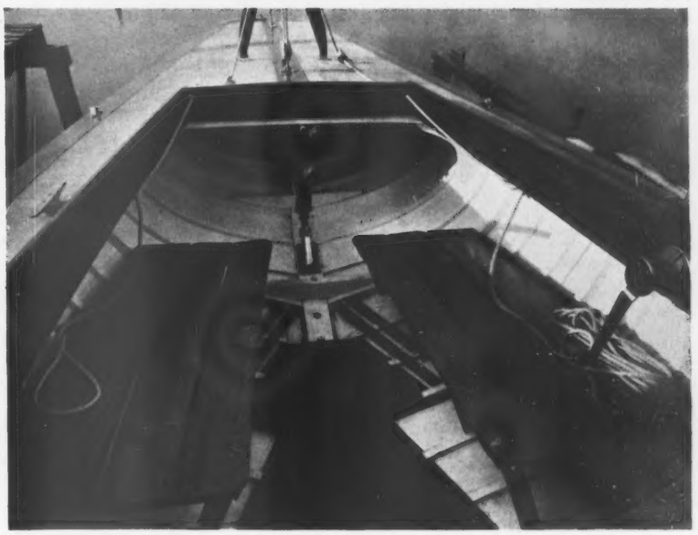
+ + +

The Internationals form such a true One-Design Class. It was born of the racing fervor of such well-known Long Island Sound yachtsmen as Cornelius Shields, Egbert Moxham and a dozen others who had been sailing anything that would float since their romper days. Its origin really

(*Continued on page 82*)



Rosenfeld Photos



Top, the first group of boats under construction in Norway. Top center, they were towed from the builder's yard to the dockside, there to be shipped to the States. Bottom center, the cabin is a model of utilitarian simplicity. Bottom, a real racing cockpit

HAWAIIAN CRUISE

From Oahu to Nihoa In a 17-foot Sloop

By CHARLES A. BORDEN

"Confucius" in Honolulu Harbor. She is 17' 0" over all, 14' 1½" water line, and 6' 0" beam. The owner and his wife sailed her from California out to the Hawaiian Islands in 1940 in 46 days

Kit Carson Photo

ARRIVING back in Honolulu from Tahiti after a cruise to the South Seas aboard the 87-foot schooner *Wander Bird*, our own 17-foot sloop *Confucius*, moored in Ala Moana Yacht Harbor, Honolulu, seemed somehow to have shrunk. For *Confucius*, be it said, is a round bottom keel sloop, 17 feet over all, 14½ water line, 6 feet beam, planked with one-inch full length teak, and copper fastened throughout. Small as she is, my wife and I had sailed her from California to the Hawaiian Islands the year before, taking 46 days for the passage. In over 6000 miles of blue water cruising, she has proven, in spite of the dire predictions of our friends, an able, sturdy little vessel; now, once back aboard, we found that our affection for her had not been permanently alienated.

Having already cruised among the islands southeast of Honolulu, our plans were to explore some of the islands to the northwest before returning to the coast. Although it was late 1941, and tension was high over the negotiations with Japan, the possibility of war, or of its affecting Hawaii, seemed remote.

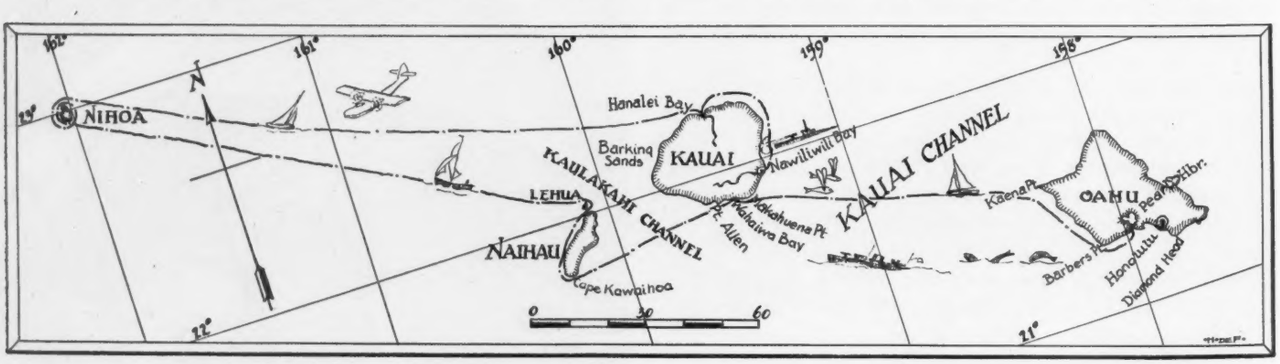
Taking our departure from Kewalo Basin on November 15th, we soon cleared the last buoy and slacked sheets to run before a freshening ENE trade breeze to Barber's Point Lighthouse, the southwestern point of Oahu Island. With her 28-foot stick, *Confucius* is surprisingly fast in light airs and, with our ballooner-genoa set, giving us a total of over 200 square feet of canvas, we rounded the lighthouse in jig time along with a dozen or more porpoises, merry old fellows, sporting along beside us.

After clearing Kaena Point at 4:00 p.m., we stood off to the west for the island of Kauai, lying some 75 miles to the northwest. By nightfall we were well out into the Kauai Channel with wind and sea just forward of the beam. A large fleet of Japanese Kewalo blue fishing sampans passed us soon after dark, bound in for Honolulu with their leathery little Jap crews on deck. The helmsman always stands in the stern with the long tiller held securely between his knees. They are often hard to see on account of the color they are painted, which their owners use because they claim it is cheap and doesn't scare the fish.

As those who have sailed to the islands well know, the normal northeast trade winds frequently pile up some queer squalls in the channels. At such times, the easy, long rolling seas shorten into heavy breakers and prevailing currents often become counter-currents. In a typical blow just a week before we left, a 70-foot Diesel-powered freighter foundered in Kaiwi Channel with the loss of all hands.

Between Oahu and Kauai is the widest and the worst of the seven channels that separate the islands of the Hawaiian group. Nearly every year the experience of skippers in the Transpacific Race has added to the bad reputation this channel has for small boat cruising. Although there are many private theories advanced, I have yet to hear of an official explanation for the tricky and often treacherous behavior of wind, sea and current in this channel.

Midnight found us under double-reefed main and storm jib, pounding into steep dirty seas and gusty winds that hurled us at times ten feet to leeward. We swooped, climbed



Left, passing through Ala Moana Channel. "Confucius" was built by Ah King, in Hong Kong, of teak, camphor wood and bagac. Below, a quiet anchorage in the Nawiliwili River, where the ketch "Stranger" was met. Near here "Confucius" is sitting out the war

and dived for over twelve hours, our cockpit awash most of the time and *Confucius* taking as mean a beating as she has ever had. Just before daybreak, a couple of large flying fish skimmed into the mainsail and fell in the cockpit.

At noon the following day, the last of the squalls suddenly disappeared and, as often happens in Hawaiian waters, the sky cleared, leaving us wallowing and windless in the heavy swells for the rest of the day. At dusk, a light ENE breeze struck in, freshened, and we were bowling along nicely when a Navy destroyer, one of the old four-stackers, suddenly overtook us and passed to port with several of the crew waving rope's ends at us. Rounding Makahuena Point, on the southeast end of Kauai, we arrived off Wahaiwa Bay on the south coast of the island at daybreak in a rain squall accompanied by loud thunder and lightning rolling down from Mount Waialeale. Finding good holding ground on the north side of the little bay in three fathoms, our sails were quickly furled and we dived below for some dry clothes and a pot of Java.

Most of our supplies are in canned goods and our galley consists of an asbestos lined drawer, four feet long, that extends aft under the cockpit when not in use. Besides three small Chinese stoves in gimbals, it contains five days' supplies which are replenished as required from our main stores (1100 lbs.) which are stowed under the bunks, floor boards and cockpit.

Back in Honolulu we had decided on Wahaiwa Bay, rather than Port Allen, when our friend Captain Charley Shaw of the cable ship *Dickenson* had warned us that if we anchored at Port Allen there would be always a freighter loading, and the wake from the sugar barges would make us think we were hove to off Cape Horn. We spent the morning strolling down to Kukuiula Bay to see a water spout known as the Spouting Horn, while in the afternoon we went up to see and hear the barking sands of Mana.

In Port Allen, at a lauau and hula shindig, we met two island girls who built a 16-foot cutter in the living room of their home and, when finished, removed a little more than the front entrance and hauled their boat out and down to the sea — which just goes to prove that Hawaiian gals are capable in more ways than one.

On the morning of November 19th, after a hearty breakfast, we set sail in a light offshore breeze and, passing out of the narrow mouth of the bay, squared away on a course W¾S for Cape Kawaihoa, the southernmost point of Niihau, an island lying twenty-five miles west of Kauai. The wind was fluky and there were numerous tide rips. In the middle of Kaulakahi Channel, we ran into a flat area and, after slatting about for a while, started our little 3 hp. Wisconsin which is located under the cockpit and out of the way, where all small auxiliaries belong. We came abreast of Cape Kawaihoa at 1:00 p.m. There is deep water right up to the face of the steep rocky shore which rises several hundred feet above sea level.

Niihau is a privately owned island and visitors are not at all welcome. The owners have a group of about 80 pure Hawaiians settled there and wish to keep them free from all outside contacts. We contented ourselves with skirting the northwest coast and, coming up the north side of the island, we passed through the Lehua Channel, a narrow way separating Niihau from Lehua, a small rocky horseshoe-shaped island a half mile to the northward.

Although we had intended circling the island, the wind had hauled to the SE and, by the time we were off Kaunuopou Point, was blowing a light Kona, just the thing for our long run to Nihoa. So with a whistle and a whoop we came about and at sundown, with the main and Genoa drawing well, we were stepping out and jogging along on a NW by W ¼ W course for that Pacific outpost, some 125 miles away.

Fish are plentiful in these waters and then some. During Rosalie's watch the following morning, she hooked a big, fat *mahi-mahi* and we had quite a tussle hauling it aboard. And none too soon, for a huge shark that looked nearly as long as *Confucius* swirled by where the *mahi-mahi* had been but a few seconds before.

Although a Force 4 wind held steady throughout the day and the sea was moderate, during the second night we ran into a sudden onslaught of wild squalls separated by short periods of calms and light, fickle, airs in which we tossed and slatted in the heavy swells. Before each squall there would be a short lull, the few petrels about us would screech nervously, then an ominous patter of heavy drops and a sudden rush of wind and rain as all hell would break loose.

Dawn of the second day broke with feathery cirrus clouds and a moderate ESE breeze. Unable to get any star sights

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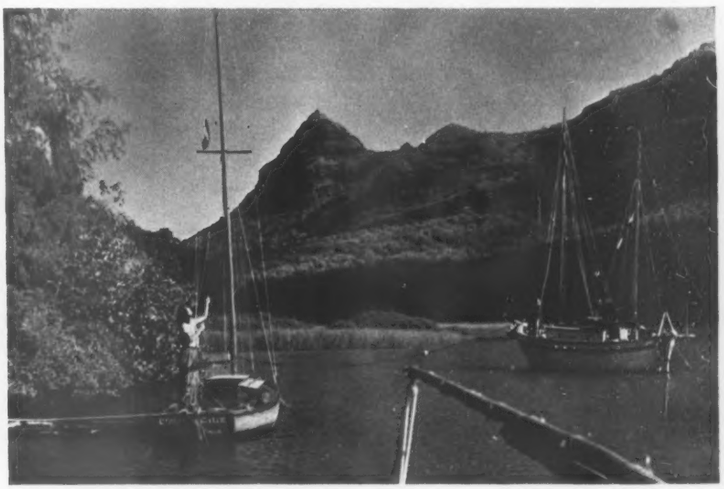
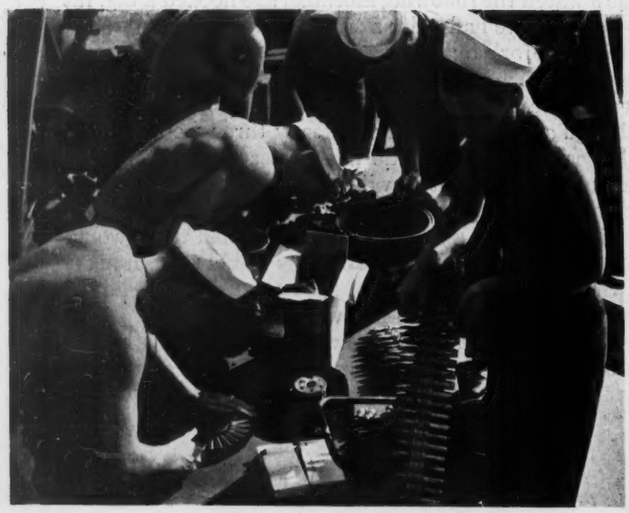
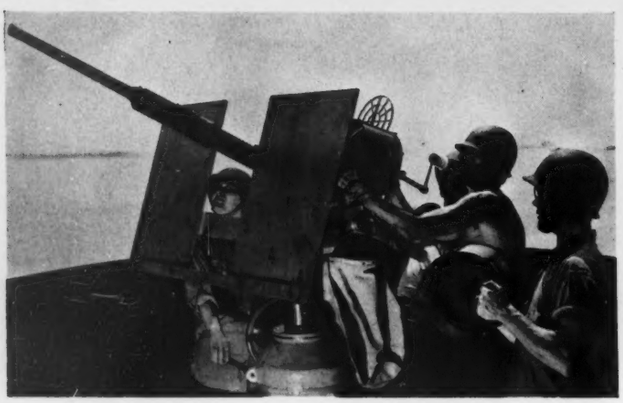
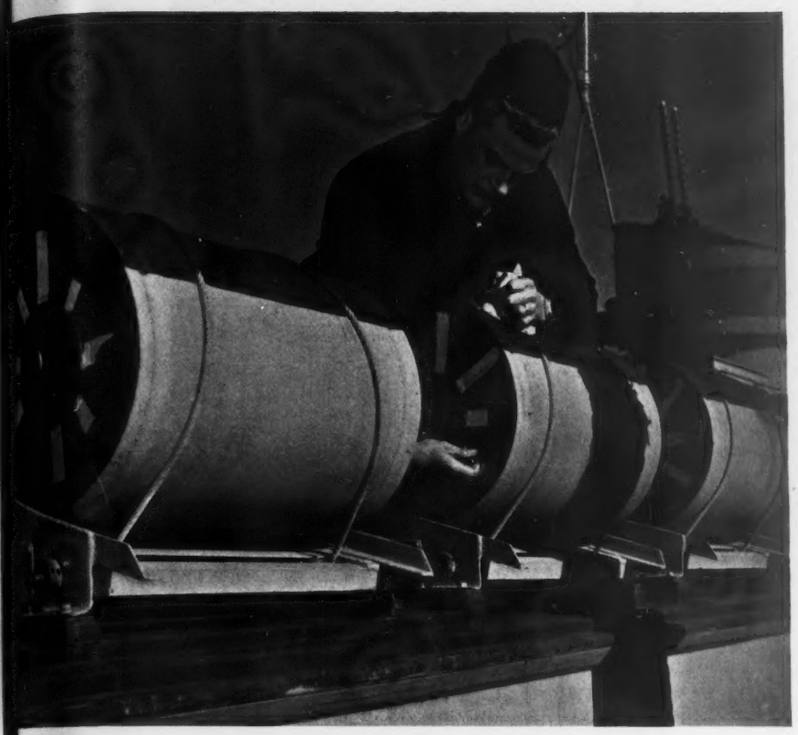






Top, a sailor sights up the long, slender barrel of a 20 millimeter anti-aircraft gun. The cylinder in the upper foreground feeds the cartridges into the firing chamber and can be replaced by a full cylinder when empty. This particular gun is mounted on a PT. Center left, loading the magazines. Bottom left, a 20 millimeter gun crew stands ready for action. Right, winding up the magazine for one of a PC's machine guns. The belt, with its cartridges, is wound up in the drum and is stowed away in a deep chest until needed

Official U. S. Navy Photos

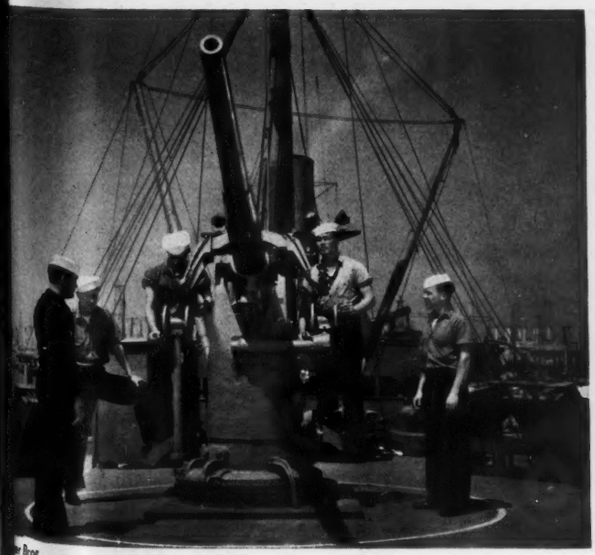


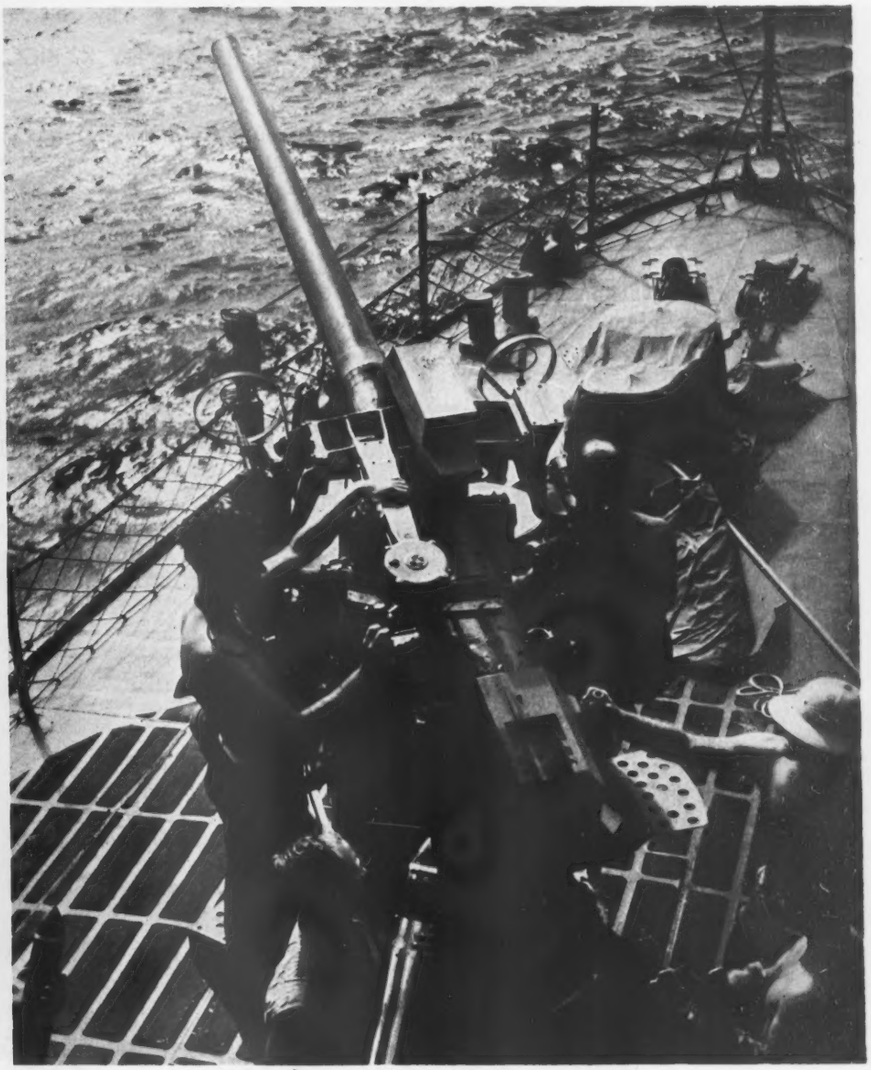
NAVAL WEAPONS

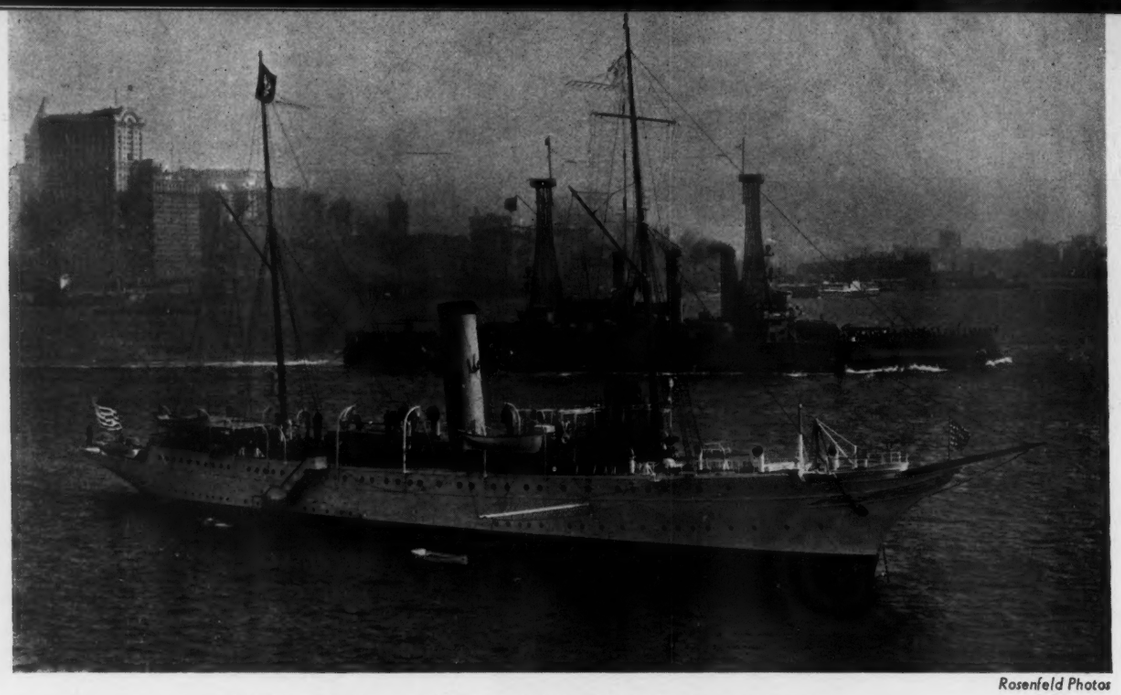
Of the many implements of modern warfare, none are more ingenious in their design and operation than the weapons to be found in the smaller naval vessels. Each type — be it a depth charge, a torpedo, or a gun of any size — demands exhaustive training in aiming calculation, control and speed of fire. The spectacular records achieved by our PT's and sub-chasers are a result of an unbeatable combination — the most advanced types of weapons manned by men who know how and when to use them.

Left, a sailor checks the condition of one of a PT's "ashcans," which can be set to explode at a predetermined depth after being discharged. Center left, a destroyer's quadruple torpedo tubes. Bottom left, training a gun crew of a merchantman. Lower right, the gun crew of a PC sub-chaser drilling with the forward 3-inch gun.

Official U. S. Navy Photos







Rosenfeld Photos

U.S.S. "Mayflower," with the flag of the President of the United States at her masthead, reviews the fleet in New York Harbor before World War I

"MAYFLOWER" SAILS AGAIN

By

LIEUT. (j.g.) HENRY K. RIGG, U.S.C.G.R.

AN interesting example of the resourcefulness of the United States Coast Guard in meeting the acute shortage of anti-submarine fighting tonnage is the conversion of the famous ex-presidential yacht *Mayflower* for Coast Guard use. Few yachts, if any, have had as much romance, history and action written into their logs as has this grand old lady of American yachting.

The *Mayflower* was designed by the famous Scottish naval architect George L. Watson for Ogden Goelet, of the New York Yacht Club. An order to build her was placed with J. & G. Thompson, of Clydebank, Scotland, early in the year 1896. This yard had established quite a reputation for building fast ships, having turned out the *City of New York* and the *City of Paris* for the Inman Line. The *City of Paris* later captured the Transatlantic speed record and held the Blue Ribbon of the Atlantic. The same yard is now John Brown & Company, and it was there that the present *Queen Mary* was built.

The vessel was launched on November 6th, 1896, christened *Mayflower*, and the speed with which she was constructed was considered quite a record in shipbuilding in that day. Her dimensions were as follows: 320 feet over all; 273 feet water line; moulded beam of 36.6 feet; and 17′ 2½″ mean draft. Her gross tonnage was 1780 and she displaced 2690 tons, making her one of the largest yachts ever built. For propulsion, she had two four-cylinder triple expansion steam engines and two double-ended Scotch boilers, designed to give her a cruising speed of 17 knots.

Mayflower was one of the first yachts to be completely lighted throughout by electricity, and also to have refrigerating equipment. Most of the interior appointments were done in Paris, and the period of her lavish furniture for a large part was Louis XIV. She was originally schooner-rigged with yards on the foremast, fidded topmasts, a standing bowsprit and jibboom. There is no accurate record of her original sail area but she carried quite a cloud of canvas. The hull was originally painted white, with elaborate gilded mouldings but no figurehead.

In May, 1897, *Mayflower* completed her builder's trials and was delivered to her owner. She clocked 16¾ knots on her trials, which was considered quite a feat for a yacht of this large tonnage. Then, in August of the same year, her owner took her to Cowes Week, where he entertained on board King Edward VII, Kaiser Wilhelm, King Carlos of Portugal, Grand Duke Boris of Russia, the elder J. P. Morgan, and Thomas Lipton. Some few weeks later, Ogden Goelet died suddenly on board while the yacht was still lying in Cowes. *Mayflower* sailed for Newport, R. I., with his body and arrived in this country after a fast passage of eleven days. Mr. Goelet's funeral services were appropriately held on

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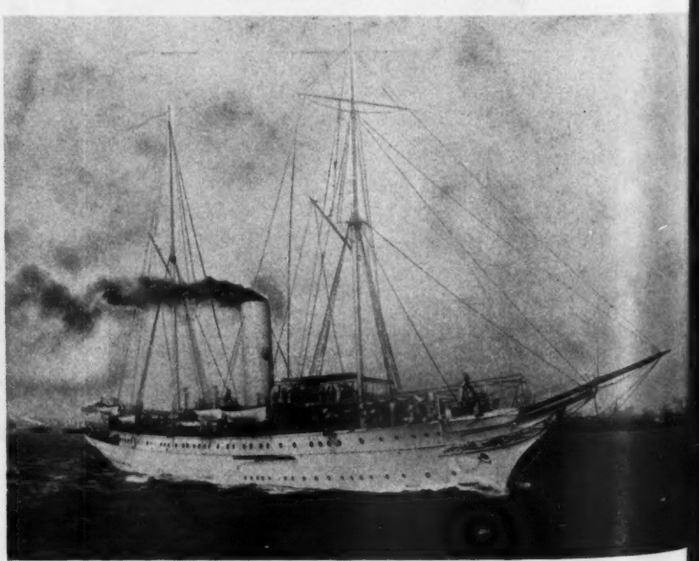


In Spanish War days, when she was first converted from a luxurious yacht to a naval gunboat

THE POST-WAR SMALL BOAT

Part II — Construction and Design

By ROBERT J. WOODS and JOHN S. BARNES

IN A preceding article we have outlined what we have called the reincarnation of wood, the development of resin bonded plywood, moulded plywood, impregnated and compregnated plywood, and their application to small boat building. Here we continue by discussing the effect these developments have already had on small boat design and those they may have in the future.

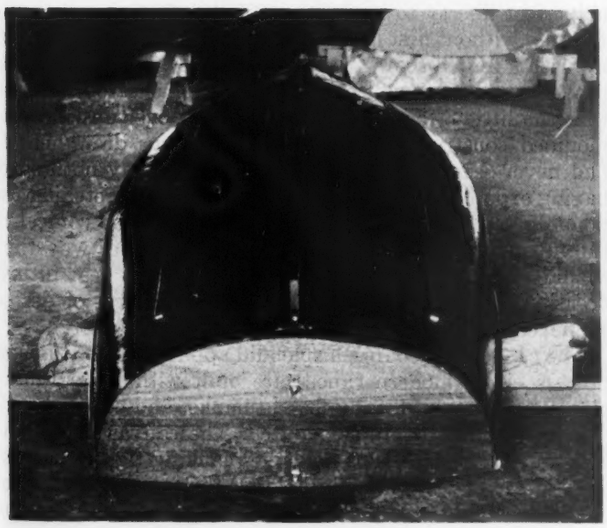
In the case of the interesting 11-foot row boat illustrated, which is also suitable for use with an outboard motor, we have a true monocoque structure of moulded plywood; that is, all of the stresses of service are carried in the skin of the hull itself instead of by frames or other structural members. The only members added are the transom, seat hangers, the seats themselves, gunwales to take oar locks, false outer keel, bilge keels to take abrasion, and a skeg for lateral resistance. All of these, while made of lumber, are, except the skeg, attached to and may be moulded directly on the skin. They may be considered simply as parts of a skin of varying thickness. The skin thickness varies in number of plies throughout the hull from three plies, totalling $\frac{3}{16}$ inch, to seven plies of approximately $\frac{1}{2}$ inch.

This boat was also designed for sail and is a pleasant performer. Additions to the hull necessary to handle the rig are confined to the centerboard and trunk, mast thwart and a small shelf along the gunwales to distribute the thrust of the thwart and the pull of the shrouds to a larger area of the skin. An 8-foot model of this type, which is used by the Navy Motor Torpedo Boats as a tender, has, serving as floor boards, slats approximately $\frac{1}{2}$ inch square running athwartships in the area normally covered by floor boards. These are moulded to and form part of the skin. By making the floor boards a structural part of the hull, stiffness is added to the bottom and weight is saved.

All of the principles illustrated in these little hulls can be applied to hulls of considerably larger size. Just how much larger it is impossible to say until more work has been done to uncover any unforeseen problems that may come with size. Probably the limiting factor will be economic rather than mechanical. The size and cost of moulds and the pressure chamber necessary for cooking the hull are the most obvious obstacles in view at present. There are in use pressure chambers or autoclaves over 40 feet long, but of small diameter for boats of that length. They are in active use on aircraft parts and, to our knowledge, no attempt has been made as yet to mould a boat hull much more than 20 feet in length. It seems reasonable that hulls can be moulded up to present tank capacity. Whether larger sizes would be economical or whether there would be sufficient demand to justify the cost is a question. This does not mean that moulded hulls of larger size will not be made in sections and assembled. In fact, this will probably take place before the capacity of present moulding equipment is reached. We can also expect moulded plywood parts to find their way into boats of all sizes, where weight, moulding qualities or some other special quality indicates its use. Just such an application is found in the Navy's spectacular Motor Torpedo Boats. Much of the superstructure is made of moulded plywood. It was designed and originally built of flat plywood with a complicated framing. Its streamlined shape made it expensive. Moulded plywood produces a one-piece cabin house of much lighter weight and at much lower cost. Weight is of great importance in these boats, particularly above decks. Therefore this application is ideal and we will see many more like it.

Now let us examine the more general advantages offered by moulded plywood and how they affect the various types

The 11-foot Hydrolite dinghy may be converted to a sail boat by the addition of a few simple parts, such as centerboard and trunk, mast step and mast thwart



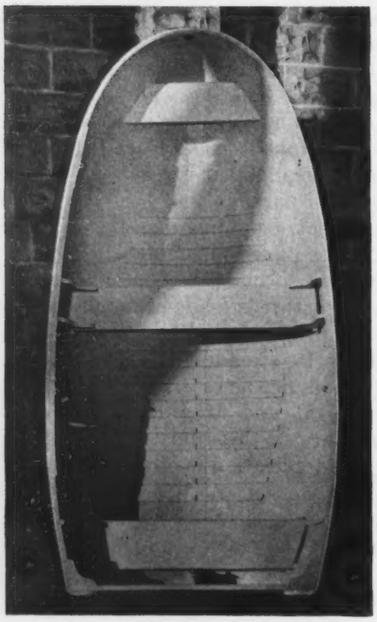
Bilge keels and false keel are moulded as integral parts of the hull

of small boats in particular. In addition to the great savings in weight effected by this type of construction, we secure a one-piece hull; that is, there are no seams to leak when the hull dries out. No longer need we expect a wooden hull to leak until it has soaked up. Naturally, there are no caulked plank seams to mar the finest finish. What's more, the finish is more durable on this surface because the greater stability of the material relieves the film of finish of the extreme stresses of stretching and shrinking as the hull soaks and dries. The film of finish remains intact longer and its life is prolonged.

The absence of frames and similar parts from the inside of the hull is a tremendous convenience in keeping the boat clean and in refinishing. It also means the elimination of many hidden surfaces such as between frames and plank, inaccessible corners impossible to protect or clean, and countless other such spots where rot may start.

Perhaps the greatest advantage offered by moulded plywood, with the possible exception of weight saving, is not yet fully realized. That is freedom of design. We can produce hulls of practically any shape by the moulded process. Just how this will express itself is hard to predict, for thought is naturally confined by long years of thinking in terms of the limits imposed on shape by conventional building methods. No longer is it necessary to land planking on a stem at its forward end nor to think of a hollow garboard in terms of difficult plank bending. Of course, it is still necessary for a designer to understand thoroughly the method by which his boat will be built so that she will be adapted to economical production by that method. But, once designers have learned the ins and outs of this method, they will find that they can do things they never dared think of before. Any predictions as to where this newfound freedom may lead should properly be made by naval architects, so any similarity between what follows and the small boat of the future is just fortunate guessing.

To begin at the bottom, the 8-foot dinghy and 11-foot row boat illustrated make a timid start at utilizing the possibilities. These boats weigh 62 and 100 pounds, respectively. This is not an unequalled weight for boats of that length, but the moulded boats are husky and built for really hard service. Other boats that can compare in weight per foot of length are frail. More important, while the boats are 8 and 11 feet long, the 8-footer compares with a 9½- or 10-footer in carrying capacity, and the 11-footer is as roomy



The 8-foot dinghies used by the Navy's MTB's have 'thwartships cleats moulded into the hull to serve as floor boards. These add great stiffness to the bottom of the boat

The light weight of the moulded hull makes the boat ideal for transportation on top of an automobile

as the normal 12½-footer. The beam and depth are in proportion to the longer lengths. These unusual virtues are the result of the conical bow which is practicable only in moulded construction. At the water line, the bow is pointed, with a sharp cutwater. Above, it swells out until it is practically circular at the deck line. This gives much more room up forward; notice the seat right in the eyes of the boat. Under normal load, the rowing qualities are the same as any well-designed, pointed boat. For heavy loads, the bow possesses reserve buoyancy. It also contributes stability forward, something quite lacking in most boats of this size; it helps lift the bow when rowing to windward with a heavy load in a little chop, instead of taking each wave over the gunwale and into the hip pocket of the man on the forward thwart. But, most important of all, that bow will make the boat behave on the end of a tow line. It is a practical impossibility to tow such a boat under to the point where she will yaw or sheer.

Because of her unusually light weight and large carrying capacity for her length, and because she will not dry out, the 8-footer is a fine dinghy to carry on deck. The PT boats are now carrying them for that reason. One man can bring the dink aboard and put her in her chocks single-handed, yet she will carry nearly the whole crew or a big load of supplies in one load. These same qualities make the 11-footer a fine boat to carry on the top of a car. Short for her size, overhang is reduced to a minimum and two women can easily swing her into position. Once there, the driver is oblivious to her presence and the car's performance is unchanged. The day is coming when fisherman, duck hunter and summer cottager will keep his favorite craft suspended above his car in the garage, like the harness above a fire engine horse. At a moment's notice he becomes amphibious, at perfect liberty to explore new and tempting ponds and marshes without first hunting out a boat or without putting up with a rented scow. An idea of the extent of further improvements of a similar nature may be gained from the fact that the little 8-footer was the first boat ever designed for moulded construction. When Olin Stephens drew her, he had never seen a moulded plywood hull to say nothing of having experimented with one. It is certainly stretching the point to say that all small boat bows should be conical in the future, but it is interesting to ask ourselves why they should be pointed at the deck. We will, in the near future, be asking similar questions about other features of design we never questioned before.

The canoe is, of course, a splendid application for the new process. Most modern canoes are built with wide frames, planked with thin, loosely-fitted, planks, and covered with canvas which is filled and painted. The canvas makes the hull watertight and helps hold the planking tightly against the frames. It is of value in holding the structure together but it does not contribute to the strength of the planking

The conical bow gives a lot of room in this 11-footer designed by P. L. Rhodes for use with outboard, sail or oars

or the frames. On the other hand, the canvas, filled and given several coats of paint, is surprisingly heavy. A one-piece moulded canoe, stress free, could be built without the canvas, using a skin thickness possibly as light as the present planking, certainly as light as the planking and frames. That saving is important when you come to a portage. The smooth exterior could be finished natural or in colors and would not be subject to tearing as is canvas. The frame-free interior, neatly varnished, would appeal to any canoeist.

The design of the omnipresent outboard motor boat seems to have settled down to pretty much one type of round-bottomed model which has been evolved through trial and error. Now that it is freed from the limitations of its usual hollow and round strip planking, some variation of the conical bow, with special attention to spray control, is bound to come. The nature of the outboard motor itself, its location and means of attachment demand that hulls for the medium and large size motors have an ugly wide transom to provide sufficient bearing and planing surface to support the motor. It spoils the appearance, seaworthy qualities and low speed performance of the boat.

The introduction of light-weight hulls, combined with the perfection of small air-cooled inboards, may change the picture entirely for boats carrying motors or five or more horse power. Motors of this size cannot be used on a square-sterned row boat but require a special hull that is good for no other purpose, so the original advantage of the outboard — converting a row boat into a motor boat — is lost. Why not a small horizontally opposed air-cooled inboard motor of bore, stroke and r.p.m. comparable to the present outboard? Knowing nothing of engine design, we can look at the power unit of any outboard motor and then look at the motor of a light Cub airplane, and feel pretty safe in thinking that the features of each can be combined to produce the type of motor we need. It would go under a thwart, amidships or any place else, and more than likely the boat with motor installed would weigh about the same as the present boat alone. Now then, we have reduced the field to two broad types of hull, one for rowing and all 'round service (including use with light-weight outboards), and one with inboard power. The former will undoubtedly develop along the lines indicated by the 11-footer, while the latter offers much greater scope for the imagination.

In considering the small inboard runabout, let us question our whole conception of hull design. Perhaps the V-bottom type, so thoroughly accepted today, is not really the answer after all. Perhaps a combination of the Jersey Sea Skiff and the present runabout might be evolved which would be a better rough water performer, a boat which could be run into a head sea and be throttled down without losing her handiness or settling by the bow. The ability to build lighter hulls and to move the motor to any position gives the designer great control over weight distribution. If the motor and the center of gravity are kept amidships, and the center of lift and planing area are kept at the same location, would not the boat trim level at a greater range of speeds? If this is done, would it not be possible to narrow the planing surface as you go aft to a point rather than a square transom? In this way a planing hull could be given something of a "run." A look at the bottom of a flying boat hull suggests this idea. On this pointed after water line, it would be possible to construct an above water stern of conical shape, with or without overhang, which would give practically all of the room at the deck line now afforded by the square transom. It would eliminate much undesirable weight in the stern, it would give the stern something of the shape necessary to handle a following sea, and it would allow the stern to settle gently so that the bow could lift with the same motion in a head sea. In other words, it would be an attempt to put seaworthy and seakindly ends on the planing surface necessary for speed.

An experienced analysis of these particular ideas might prove them quite worthless but the point is that it is now comparatively simple to build these odd, compound-curved, shapes without heavy, cumbersome, internal structures, and they may be used in any combination with flat or simple curved shapes. And further, less weight and greater control over weight distribution combine to broaden the possibilities of design to a stimulating degree. The terms hydrofoil and wave-collecting hull form excite the imagination. It is not entirely impossible that some radical shapes, combining the virtues of not only the present round and V-bottoms but those of the Sea Sled and the tunnel stern, might be evolved if they could be built.

William Atkin has designed some weird and wonderful-looking hulls that combine the broad flat keel of a dory or Jersey fishing boat with a V-section forward, and a tunnel stern. Odd sounding, aren't they, but fine performance and good speed are reported. They are beautifully shoal draft and could be beached or transported on a trailer without fear for the shaft and wheel. Certainly the recent development of the Higgins "Eureka" model proves that the possibilities of hull forms have by no means been exhausted. Moulded plywood will produce such hulls more easily than other means and free the originality of bold designers for further excursions into untried fields. This new construction is a challenge to designing thought, and we have every reason to expect outstanding and progressive, if rather startling, results. Above decks, the famous PT boats, the *Revere*, the late Anthony Fokker's *Q.E.D.* have made a start, and moulded plywood is without doubt the material to finish the job by making streamlining not only attractive but a practical and permanent feature to design.

Perhaps because the sail boat man is in more intimate

(Continued on page 86)

The 11-footer makes a fine tender, being light, roomy and easy to row

THE WHY OF THE INTERNATIONAL "14"

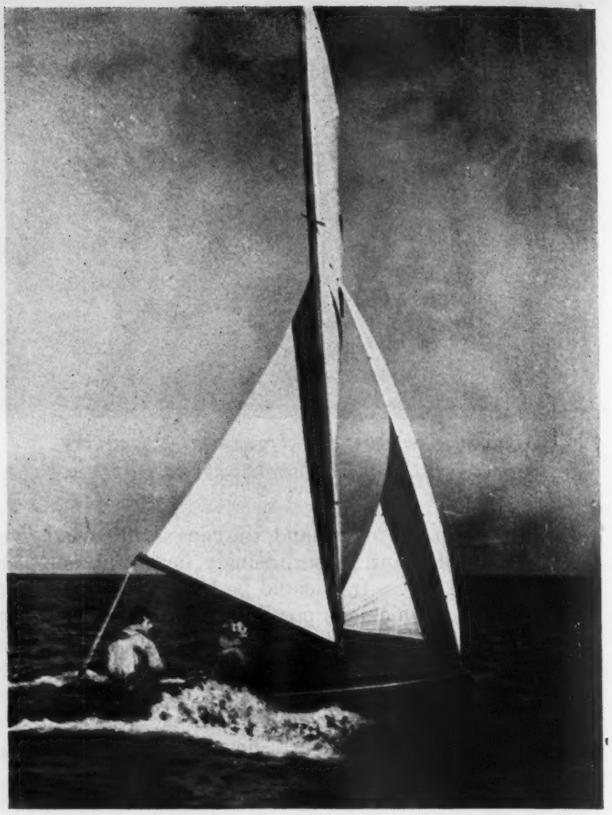
She's a Fine, Fast, Able Little Boat and Lots of Fun to Sail

By GORDON K. DOUGLASS

IN 1927, at Daytona Beach, Sir Henry Seagrove set a new world's record of 203 miles an hour in his twin-engined Sunbeam car of 2,746 cubic inch piston displacement. In 1939, Major A. T. G. Gardner, driving a 12 hp. M-G Special of only 67 cubic inch piston displacement, reached the same speed, 203.5 m.p.h. but with a motor one-fortieth as large! This may seem a strange introduction to an article on boat design, but I use it to show what can be done by scientific research in getting results by means of refinement of design.

Consider the America's Cup yachts: *Reliance*, in 1903, carried some 15,000 square feet of canvas; *Resolute*, in 1920, carried about 10,000; and *Ranger*, the 1937 model, had 7,546. *Ranger* had only one-half the sail area of *Reliance* and yet most will agree that *Ranger* was the best boat built to the class.

Another interesting comparison is to be found between the Six-Metres and the 22-Square-Metres. These boats are of approximately the same length and beam but, whereas the "Six" displaces over four tons and carries about 470 square feet of sail, the "22" displaces two tons and carries only 235 square feet of canvas. The "22" is, consequently, less expensive to maintain; is fun to sail because, being lighter, she is lively and responsive; and is just about as fast.



An International "14" in a fresh breeze and going like a scared cat. Here she is beginning to plane on her long, flat afterbody

No one in his right mind should expect a 14-foot open boat to outsail a keel boat three times as long, especially in a 25-mile wind and nasty Lake Erie sea. And yet, at the Cleveland Yacht Club regatta last summer, in my International 14 *Foxy Too*, I outsailed the "R" fleet on a beat to windward, outpointing them by nearly a point and footing just about as fast. And from the Rochester Yacht Club, George Ford reports a brush between his International 14 *Venture* and the well-known Six-Metre *Djinn* one day in a fresh northwest wind blowing across Lake Ontario. On a close reach of one and one-half miles to the home mark, he sailed by *Djinn* to leeward and increased his lead to about 150 yards.

We can see from these comparisons that a light, well designed sail boat can be just as fast and seaworthy as a heavy boat; that design, rather than mere size, is what makes performance. Uffa Fox goes so far as to say that, in his opinion, the only place where weight is advantageous is in a steam roller.

The purpose of this article is to discuss the design of the International 14's because it is their design which gives the qualities that those who have not sailed them often will not credit to these little thoroughbreds. This was well expressed by a sailor who recently wrote: "I had always discounted as impossible what I had heard and read about the 14's but, now that I own one, I have discovered that it is 100 per cent true."

The International 14 is a fast and sporty racing boat with all the essential equipment and rigging of a Six-Metre, such as spinnaker, genoa jib, roller reefing gear, halliard winches, etc. Her original cost is small, her maintenance negligible; she can be carried by two men, is easily transported hundreds of miles from regatta to regatta — and yet, because of her exquisite design, she has the quality of handling and

The "14"'s parachute spinnaker is small enough to permit easy handling, yet large enough to make things lively

Even in heavy going they behave like thoroughbreds. Here a "14," reefed down, slices her way to windward

Rosenfeld Photo

performance usually found only in a large, expensive racing yacht. In my opinion, there is no other boat like her.

The outstanding characteristics of the 14 are perfect balance under varying conditions of wind and sea, and unusual seaworthiness. Her performance will satisfy the most experienced skipper. Being undecked, and having room inside for four or more persons, she is a good all-around utility boat. Although she is often considered a young man's boat, at many places in various parts of the world we find that some of the outstanding skippers in the class are men and women in their forties, fifties and even sixties.

The International 14 is one of the most popular international open-design classes in the world, and one of the oldest. Fourteen-footers have been sailed as far back as 1885. Their phenomenal performance is the result of painstaking development through the years by many of the keenest helmsmen and ablest designers. Such men as Pettengill, Fife, Milne, Nicholson and Giles; Ackroyd, Bourke and Hall, all have had a hand in this development. In the United States and Canada, we have developed a light weather boat for our conditions. The English, faced with sailing in the vicious winds and seas of the North Sea and English Channel, have evolved a heavy weather boat which could take most anything that came along but which is slower than ours in anything except strong winds. In recent years, however, the genius of Uffa Fox has brought to perfection our present planing hull which, while retaining the seaworthiness of the English type, is even faster in light weather than the former American light weather boats and believed by many to be a far superior all-around performer.

In 1933 and 1934, an English team, sailing these Fox boats, made such a fine showing against Canadian and American teams that George Ford and a group of Rochester Yacht Club sailors bought one of the English 14's, the famous *R.I.P.*, and organized the American International 14 Association. This is a non-profit organization for the purpose of promoting a one-design class within the international open class restrictions. Last year, the Association sponsored the building of Vidal-molded hulls for these boats. So now we can enjoy the advantages of 50 years of designing development and, at the same time, have all the benefits of one-design class rules and the latest in hull construction.

Formerly, the 14's were relatively expensive (and entirely too difficult for the amateur to build) because of their double-planked construction. U. S. Plywood's Vidal-molded hulls have altered this picture by making available, to both professional and amateur, a beautiful mahogany hull which so reduces the cost that a super deluxe boat can now be sold for $475 complete except for sails. After obtaining the pressed hull, the amateur can finish the job himself at a cost of about $200 for materials and in one-half the time of building any other small boat of comparable size and quality. A glance at the construction drawings shows the simplicity of the hull construction. Results so far indicate that the molded hulls are just as fast as the older type double-planked boats, are lighter and more durable, and are just as handsome.

Under the guidance of the American International 14 Association, the one-design class has grown tremendously all over the world, with fleets in Australia, New Zealand, Hawaii, Norway, Denmark and South America. In the U. S. and Canada, registered boats number more than 150, with fleets around the Great Lakes and on both coasts. The U. S. Naval Academy and the U. S. Coast Guard Academy both have them, the Annapolis fleet numbering 32 boats.

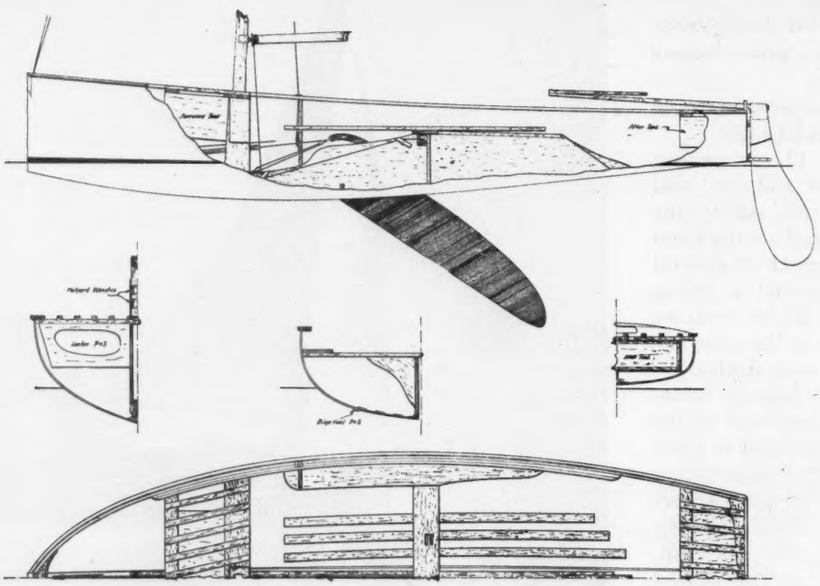
My own opinion of the International 14's may be somewhat biased by the fact that I build them. However, in thirty years' racing experience, I have sailed many boats; I build a number of other racing classes, all of them larger and more expensive than the 14's, and yet I still think the 14 is the sweetest boat regardless of size it has ever been my pleasure to sail as well as being the most wholesome small boat I know of.

In any discussion of design, we must bear in mind several fundamentals. First, a boat must be designed for certain uses because no single design can embody all the qualities desired for all types of sailing. Second, design is influenced by available methods and materials and, for this reason, the racing boat of today was not possible a few years ago. Last, there are no hard and fast rules for the naval architect to follow in designing a boat. There are certain accepted principles, especially for boats of a similar size, but what is good in an Eight-Metre, for example, is sometimes not so good in a small boat because of the often overlooked fact that a big boat has relatively more stability than a small boat of the same proportions, owing to the fact that displacement varies with the cube of the length, whereas sail area and some other factors vary only with the square of the length.

Most of our popular classes are from a single design by one architect. The designer of a one-design class is at liberty to experiment, to use as many of his pet ideas as he may wish, and these ideas, good or bad, become the features of the class and cannot be changed. In an open class, however, a boat is judged by her performance. Consequently, the design must be strictly functional and any feature which does not work is either modified until it does or is dropped. In this manner design is brought to perfection.

The lines of the 14 show a full bodied, compact little hull with the underwater lines of a boat half again as long. Stem and transom are plumb, bilges full and firm. She has a deep chest with V-sections forward and a long flat run aft. The buttocks and water lines are fair and easy, showing that high speeds are possible with little effort and fuss.

Speed, in a displacement hull, is related to water line length, a commonly accepted formula being: Maximum speed $=\sqrt{WL}\times 1.45$. A light, unballasted boat sails best



Length, 14' 0"; beam, 56"; depth, 22"; measured sail area, 125 square feet, minimum weight, 225 pounds for stripped hull, centerboard weight, 90 to 100 pounds

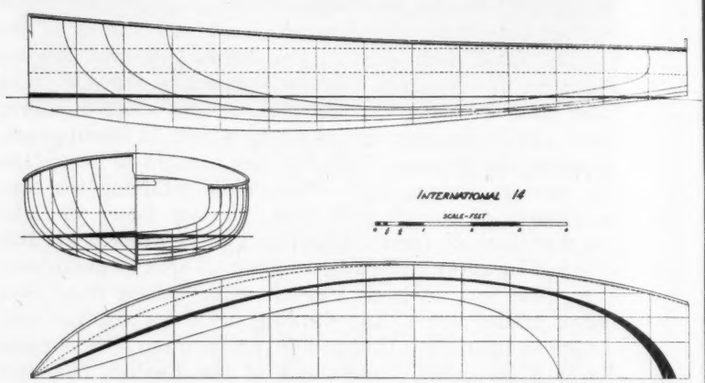
when she is upright because the hull, sails, keel and rudder are then operating at maximum efficiency. The keel boat relies for stability on the weight of her keel and on her lines, and such stability increases as she heels. The designer gives her overhangs which help to offset loss in efficiency by increasing her water line length as she heels.

The light centerboarder should be sailed as close to upright as is physically possible, and can be because she has effective shifting ballast in the crew, which, as in the case of the 14 with her 225-pound hull, may weigh more than the boat. On a small boat, therefore, overhangs serve no purpose and actually reduce the speed of the hull by shortening its water line length. That is why the 14 is designed with plumb bow and transom.

The place to look for speed in a boat is in the stern and, for weatherly qualities, in the bow. In the 14, the bow is unusually full and high above the water line to lift her over oncoming seas. Sails, centerboard and crew are concentrated over the deepest part of the hull, the deep chest under the mast. The bow is light and free to lift but, at the same time, it has a firm hold in the water and does not fall off the wind on a beat but knifes its way to windward. It builds a lee bow wave which pushes the boat to windward and, actually, it is claimed that the 14's will work up higher than they point.

The stern is another kettle of fish. The bow sections blend into a clean flat run which lets the water slip astern with never a ripple. In sailing to windward, we use the bow of the boat by keeping our weight forward. On the runs, we move slightly aft and she slides along on the after sections. The V-sections of the bow help the boat to rise into a plane, thus jumping from the limited speed of the displacement hull to the almost unlimited speed of the hydroplane. The picture, on page 40, taken in a fresh breeze, shows a 14 beginning to plane. We were running so fast that our bow wave was at times landing abaft the transom.

A displacement hull is retarded by two sorts of water resistance: wave making and skin friction. Wave making is unimportant in light weather but increases with speed and becomes the limiting factor in maximum speed. Skin friction, however, is most important in light airs when the boat is barely moving. So the designer gives the boat as little wetted surface as possible. The round bilge has less surface for its volume than other forms, one reason for the phenomenal light weather performance of the 14's which are still lively and still sailing, when other boats are lying dead and lifeless.



There are two ways of achieving seaworthiness. One is to deck the boat over in an attempt to shed water which comes over the side. The other is to give the hull sufficient freeboard and buoyancy to rise over the seas without taking them aboard. Last summer, at the I.L.Y.A. Regatta on Lake Erie, after some rough going, a Comet sailor told me that he could not understand how I could have sailed my boat around the course that day, because his boat repeatedly "submarined" and almost swamped in spite of her deck. The explanation, of course, was that my boat did not "submarine" and took aboard nothing but light spray, hardly enough to more than wet her bottom boards. The ends of an undecked boat are light, free to rise over the waves. She has a great deal more room inside and, being lighter, is more lively and responsive.

Lightness aloft and weight below is another requisite of sail boat design. The lighter the spar and rigging, the better the boat will handle in wind and sea, because every pound of weight in a spar is multiplied by its distance from the center of buoyancy of the hull: one pound at the top of a 25-foot spar must be balanced by 25 foot pounds in the boat. In the 14's, we find a highly perfected pear-shaped spar with slot for the sail (eliminating the weight of sail track and slides), three stainless steel diamond stays but only a single main shroud on each side, a jibstay and a headstay. The halliards are 1/16" stainless cable enclosed in the mast and winding on bronze winches built into its heel. This rig gives great strength and little windage. Its total weight, including all rigging, winches and gooseneck, is only 17 to 18 pounds. The

(Continued on page 76)

"IT'S DONE WITH SPHERES"

The Other Side of McMillen's Global Navigation

IN THE January issue of *Fortune* magazine, an article was published describing in non-technical terms a system of navigation which had recently been "discovered" by Drury A. McMillen, now living in Brazil. Perfected, and by using special instruments for measuring distances on a globe instead of a flat chart, the system is supposed to be of particular value, due to its simplicity and speed, in air navigation. In essence, the system consists in determining the sub-stellar point of the stars used in the observation at the moment their altitude is taken, plotting these sub-stellar points on a globe or hemisphere, and then fixing one's own position in relation to these points by drawing circles of position on the globe equal to the distance (in degrees) the sextant reading shows one is away from that sub-stellar point.

In describing what it calls the simplicity of the system, *Fortune* says (we quote by permission):

"The anachronism of confining 300-mile-per-hour airplanes to 20-knot navigation is justified only when nothing better is available. Today there is something better. Drury A. McMillen, a Yale engineering graduate living in São Paulo, Brazil, has discovered a system of navigation so simple in application that a high school graduate with six weeks' training can navigate the fastest planes in transoceanic service. This same navigator can, without benefit of mathematics, formulas, or books of tables other than the *American Air Almanac*, fix his position on the globe in ten minutes within a margin of error of ten miles. At no time does he need to resort to a dead reckoning position or an assumed position to establish his true position. What McMillen has done, in effect, is to scrap the complexities of tradition-bound navigation, and — by a return to fundamentals — to produce an entirely new system geared for high speed and precision. He has taken global navigation and placed it where it belongs, on a globe."

". . . Celestial navigation, usually considered complex, basically is as elementary as the fact that the sun apparently rises in the east, sets in the west, moves south in the winter and north in the summer. Astronomers have plotted the position of the sun, the planets, the moon, and the stars in relation to the earth for every instant of every year; these positions are tabulated in the *American Air Almanac*. The navigator, knowing the position of the stars, has only to determine his position in relation to theirs, much as he would refer to landmarks in contact flying, or radio bearings in radio direction finding.

"He does this by observing them with a sextant, and by measuring in degrees their angles above the horizon. The greater the angle above the horizon, the closer he is to that star's sub-stellar position (the point on the earth directly beneath the star), until at 90° he is directly upon it. Should the sextant reading of the first of two stars be 60°, the navigator knows that he is on a circle the radius of which is 30° from its sub-stellar position. If the sextant reading of the other star is 40°, he knows he is somewhere on a circle the spherical radius of which is 50°. Thus his position must be at one of the two points at which the circles intersect, since those are the only two places at which he can be 30° from one star and 50° from the other. Inasmuch as the two points are many hundreds of miles apart, the navigator obviously knows at which point he is located."

The difficult part of the problem is, of course, to get some method of measuring with sufficient accuracy and precision for navigational needs on a small globe capable of being handled in an airplane. A set of curved tracing and measuring devices has been produced by McMillen and Dr. Anton Stuxberg and are supposed to give results within ten miles. Whether or not they will give such accurate results on such small globes as have to be used, is open to doubt.

To get the viewpoint of navigators of prominence on the new method, YACHTING asked Dr. Harlan T. Stetson, Professor of Cosmic Terrestrial Research at M.I.T., and author of *Map Reading and Avigation*, and George E. Roosevelt, a writer and lecturer on navigational subjects, to give its readers their views on the subject. We are glad to print them herewith.

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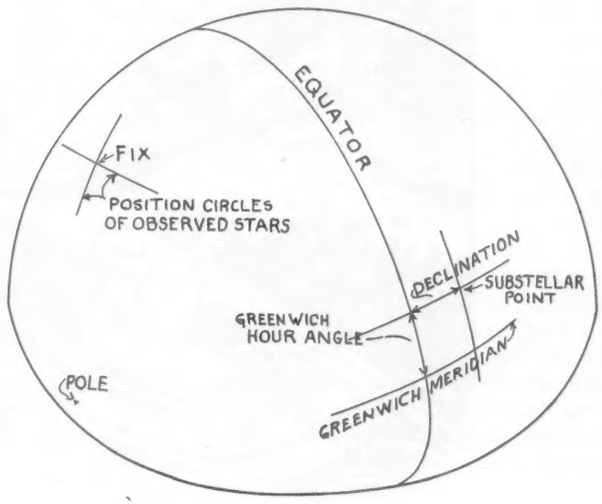
I HAVE been much interested in Mr. McMillen's spherographical system of navigation as described in the January issue of *Fortune*, especially since Mr. McMillen uses essentially a some what glorified form of apparatus which was devised and used for many years at the Harvard Astronomical Laboratory in the elementary courses in astronomy under my direction. The hemisphere, spherical compass, and spherical protractor have been manufactured by the Eastern Science Supply Company of Boston since 1925.

The objection to the use of this system in practical navigation has always been the lack of precision. Even with a well sharpened pencil, it is difficult to understand how the author can claim an order of accuracy of three miles by any such graphical method. On the globes which we used for instructional purposes, a millimeter represented one degree of a great circle arc. On any globe of convenient size to be used aboard a plane and which did not have to be manufactured at a prohibitive cost, it would appear doubtful if better than one fifth of a degree or twelve minutes of arc would be practical.

One point to be remembered in air navigation as distinct from water navigation is the far less accuracy required; even



Using curved tracing and measuring devices, equipped with micrometers, the navigator plots on the sphere the sub-stellar points of the stars observed and draws their position circles to get his fix

an uncertainty of one half of a degree in one's position in the air would not make a difference of more than six minutes in flying time, whereas on the water such an uncertainty could introduce an error of two to four hours' sailing time in making a landfall.

There is no question about the three-dimensional system having the advantage in presenting the true geometry of celestial navigation. If, however, as Mr. McMillen states, ten minutes' work is involved in attaining the necessary accuracy by this method, it would seem that the system defeats its own purpose since with the H.O.214 Tables, for example, a competent navigator would have his lines of position in four or five minutes after taking his sight. In any system, corrections to the sextant observations and chronometer readings would have to be made.

Under these circumstances, Mr. McMillen's experiences in Washington are not surprising. Considering the tastes of navigators, the problem of getting one method of navigation adopted to the exclusion of all others would perhaps be second only to regimenting a universal diet for the entire civilian population. There are probably as strong likes and dislikes as to methods of celestial navigation as in any field one might encounter; usually, one has a preference for the system with which he is most familiar. There are still those who swear by the old time sight, others who prefer H.O.211 or H.O.214. Occasionally, one finds a Merchant Marine officer who uses nothing but Martelli's Tables. These are based upon a curious metamorphosis of trigonometrical tables denaturalized by omitting decimal points and introducing a strange vocabulary for the familiar trigonometrical functions. For myself, I think H.O.214 and the *Air Almanac* offer by far the shortest and quickest method.

The presentation of the subject matter in the article in *Fortune* is somewhat irritating to one versed in navigation. The uninitiated would gain the impression that Mr. McMillen's system was based on entirely new principles and was a panacea for all the troubles incident to dead reckoning and the use of tables. Such statements as "all the weaknesses of conventional navigation had become disconcertingly real to Drury McMillen long before he decided to do anything about it" and "he resolved to find a system of navigation free from the defects of the old-style methods" are misleading.

The McMillen system does have the merit of requiring no knowledge of the dead reckoning position of the plane since the circles of altitude can be drawn on the sphere with no other information than the chronometer reading at the time of the sights, the sextant altitudes of the star, and the information contained in the *Air Almanac*. As with any other method, the position must be ultimately plotted on the pilot's map or chart of the region flown.

In all fairness, it should have been pointed out that the McMillen method is applicable only to night flying when simultaneous observations of two stars are possible.[1] This, of course, is a drawback of any system of determining a fix solely from observations of celestial objects. In modern air transportation, long distances are often flown in daylight only. Without recourse to dead reckoning, observations of the sun alone would be of little or no help on the McMillen system as presented.

Irrespective of the order of accuracy which the author of the method claims, the ability to determine readily positions in the air to an accuracy of only fifteen or twenty miles is probably generally sufficient for overseas flying. Except under unfavorable conditions of visibility, a pilot should have no difficulty in spotting his land objective on high altitude flights under such circumstances; such uncertainties in surface navigation could prove disastrous in making a landfall. Greater accuracy in the air would be needed before descending through an overcast or in maneuvering for a radio beam bearing in flying blind. Ocean navigators probably do need re-educating as to the kind of accuracy necessary for air navigation.

HARLAN T. STETSON

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I HAVE read the article in the January edition of *Fortune* entitled "Air Navigation for Global War." Of course, I am unable to comment on the Washington run-around discussed in the article but I would be glad to say a few words on the two totally erroneous impressions that the article attempts to convey; first, that the idea is new and, second, that it provides a method of navigation sufficiently accurate and easier than those methods previously known.

[1] *An exception to this statement occurs on those rare occasions when both the sun and the moon are simultaneously visible in the daytime and the moon is near quadrature.*

(Continued on page 74)

UNDER THE LEE OF THE LONGBOAT

By "SPUN YARN"

WHEN I look at YACHTING'S masthead and note that four of us are on active service, and when I note, as I am obliged to do, damn it, that the remaining four are turning out a magazine that is better than ever, I tremble for the future. Suppose the Old Man should get the idea that he can continue to do without us, come the surrender of the jerryjaps!

My gifted friend Caleb Bilgewasser and I attended a reunion where we heard a story about a Yippy boat, and from the gleam in the eye of each it was apparent to the other that each intended to embellish his page with it. So here's my version and you can skip Caleb's. You remember the Navy aviator who "Sighted sub. Sank same"? Equally laconic was the skipper of an 8-knot YP boat who sighted a sub and rolled a depth charge over his stern. When the skipper got ashore, he seized a memorandum blank and wrote: "Sighted sub. Sank self."

And here's one that I'm pretty sure the poet laureate of "In the Wind" hasn't heard because I got it at the Naval Hospital where I was having my plumbing overhauled. It's an Army story but, since the Army has recently taken on the job of sinking the Jap Navy for us, I think we can let it pass. A homesick soldier, on duty in the burning sands of Palestine, wrote home: "I don't know whether the censor will let this by, but I'm in the land where Jesus Christ was born, and Jesus Christ I wisht I was in the land where I was born." (Who doesn't who isn't?)

There's a reporter named Morley Cassidy who took a trip in an escort vessel and wrote for his newspaper a story of his experiences, doing his best to make a routine task sound thr-rilling. For contrast to the glamor, romance, and danger of life in a convoy escort, he penned these insulting words: "Mine sweepers, too, are part of our defenses." (Get that condescending "too.") "We meet two of them heading back to port from their morning chores, like a pair of weary charwomen plodding home at dawn." Weary charwomen, indeed! In my experience, when the sweeps turn on the going-home oil they leap to port like lovely brides loping to the altar. Bow waves halfway up the stem and boiling white wakes streaming out astern. Mr. Cassidy would better choose his similes with greater care if he doesn't want the crews of the sweeps to boycott his libelous sheet.

Often on rough days, when I've been sitting pretty in a mine sweeper, I've looked up at Navy scout planes doing Title X turns in a freezing gale, and I've said to myself: "Thank God I'm not up there." I tell you this to reveal the difference in the point of view. A couple of months ago, one of the sweepers got mislaid in an offshore blow and, what with all hands bailing half the night and no time out for morning sights, called up and asked where she was. I went out in one of the searching planes and, when we found her and gave her her position, I had plenty of opportunity to see how she was taking it. She was making about three knots dead to windward, scooping it green over her bow, spilling it white from her freeing ports, and spraying it high over her flying bridge. Everything normal for a 40-knot breeze. And, as I looked down at her (keeping my eyes away from the horizon which happened to be standing on edge), I found myself thinking: "Thank God I'm not down there." Which goes to prove that a man with no imagination gets the most out of life.

Still speaking of the sweepers, a mess attendant whose past was as shady as his complexion recently got himself drummed out of the Navy for being too addicted to assault and battery on innocent civilians and Marines. While he was yet a mine sweeper on sufferance, the crew was called to General Quarters and his skipper noticed that the mess attendant handled a Tommy gun with accustomed ease. So the skipper said: "Frank, why don't you take that gun down and put it together for practice? Or do you know all there is to know about a Tommy gun?" "No sah," he replied, "Ah don't know nothin' about Tommy guns. All Ah knows is dey puts 'em loaded in the back seat and says the sedan is full of gas." Frank's Draft Board has been notified of his expulsion from the Navy and I hope, for the sake of the folks back home, that he's in the Army now.

In the British Navy, I'm told, there are a number of passed-over leftenant commanders who failed to make their promotion in times of peace, resigned, and came back into the Reserve willing and eager to take any billet that was handed them. I heard of one in the M.T.B.'s who has made his name feared by the German E-boat personnel, and I heard also how he came to be passed over while he was in the regular service. It was this way. Before the war, he was gun-

(Continued on page 86)

YACHT DESIGNING FOR THE AMATEUR

Part I—Some of the Principles of Naval Architecture Which the Budding Designer Should Know

By CHARLES H. HALL

YACHT designing is really not a science but an art with a scientific basis, and the amateur designer can do well at it if he will take the trouble to learn its underlying principles. It is not enough for him merely to be crazy about boats; he must know what makes them tick and what effect changes, sometimes apparently minute, may have on a boat's performance. He must be observant, patient and accurate and must not be afraid of tedious calculations and a lot of pottering over the drawings.

If he wishes merely to get out the plans of one or two boats, he can get along with much simpler equipment than the professional will need and can use makeshift methods which might be too time consuming for the regular. Now as for equipment.

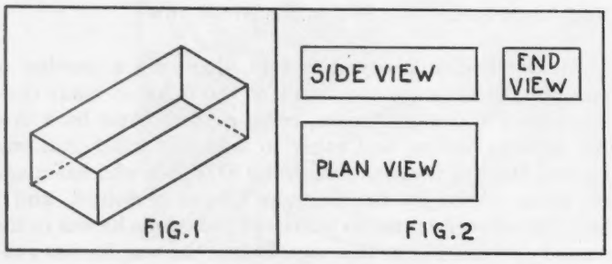
The Necessary Tools

First, a good drawing board, of clear, soft pine, in size not less than, say, 18″ by 36″; larger would be better, even 30″ by 60″ or 72″. The larger board gives room for drawings on a larger scale and allows space for weights, battens, note book, instruments, etc. The board should have one really straight edge so that a T square may be used.

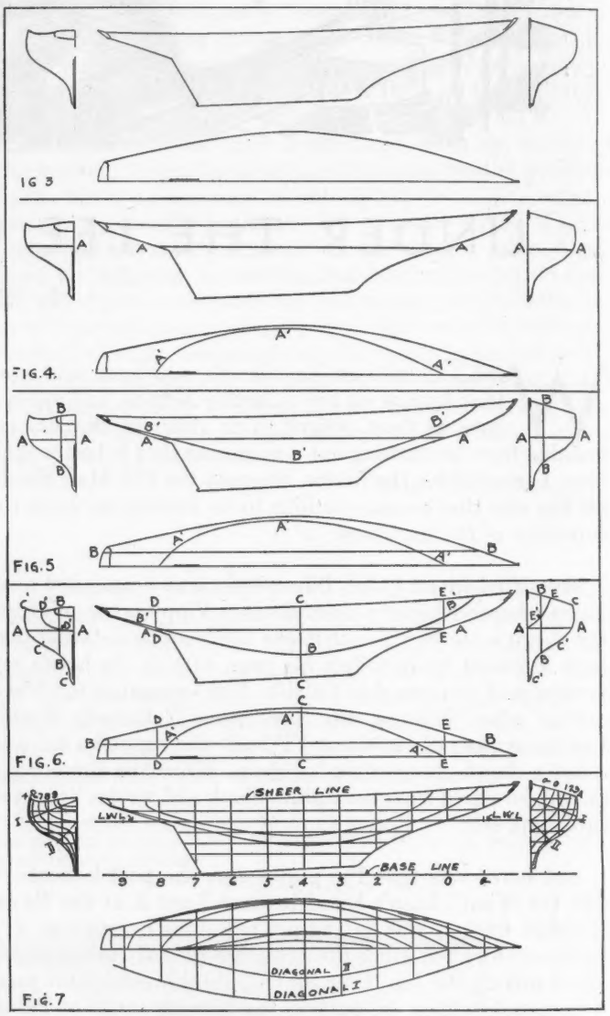
A straight edge will be needed for ruling the long straight lines and a couple of triangles, 30°-60° and 45° are necessary. The big one may be as long as 8″ or 10″. Celluloid ones are nice but wooden ones will do. For certain work, a couple of small ones, 4″ or 5″, will be useful. Be sure that the triangles are square. To test this, put one against a straight edge, draw a line, then turn the triangle over and, holding it against the straight edge, see if its edge coincides with the pencil line.

For drawing the long curved lines, battens and weights will be needed. The battens may be of some straight-grained wood such as white pine, Port Orford cedar or the like, and nearly as long as the board. They should be of various sizes and shapes, some parallel sided, some tapered from one end, some tapered both ways from the middle and one or two thin in the middle. For "quicker" curves, one or two celluloid battens are indicated. Personally, I like to have one or two really small ones, say ⅛″ or 3/16″ by 3/32″ and 15″ to 18″ long, for drawing in the stations in the body plan. These you'll probably have to make, cutting them off the edge of a sheet of celluloid. Once you get used to them, you'll never be without one.

To hold the battens in place, you'll need from 15 to 18



A rectangular box is easily depicted on flat paper



The three plans may be considered as being developed from the lines made by sawing up a model

weights. You can buy them but, if you can get the lead nowadays, you can have them cast a lot cheaper. They should weigh about 4 pounds each and should have their beaks, of No. 10 BWG brass wire, cast in them. If the beaks are inserted after the weights are cast, they'll be sure to work loose after a little use. The bottoms are covered with felt or cloth and the weights are painted. They're called "ducks."

For measuring, you'll need scales, the architect's kind divided into feet and inches, with perhaps one engineer's scale which is divided decimally. The best are white celluloid and boxwood, the next best plain boxwood but paper scales, on thin cardboard or heavy paper, will last a long while with proper care. Scales should be 12″ long and divided 1½″ and 3″ to the foot, 1″ and ½″, ¾″ and ⅜″; ¼″ and ⅛″. For sail plans, a scale 3/16″ to the foot will be handy. Keep your scales clean and use them for measuring only; don't rule with them.

A number of ship curves are needed for drawing lines of quick curvature. The professional has a set of "Copenhagens" some eighty in number, varying from long "sweeps" to quick "in and outs" but the amateur can get along with less than a dozen. A few "bilge curves" are handy. These are combinations of nearly straight lines and quick curves and come in different sizes. Some draftsmen swear by "pear shaped" curves and some have "railroad curves" for deck beams. The so-called "French curves," with queer twists and turns, are useless for ship work since their character is entirely different from that of the real ship curves. And it is surprising how well you can do freehand, with a little practice.

A good pair of compasses is needed for drawing circular arcs. They should be 5″ or 6″ in length and they should have pen and pencil points as well as the sharp divider points. For small circles, a set of bow compasses will be handy; they need not be expensive.

A good ruling pen is a necessity. It should be of good steel and of fair quality. A poor pen is a nuisance since it gets dull so quickly, making it impossible to draw fine, uniform lines. For lettering, a fairly fine steel pen (not a "crowquill") is needed. Keep your pens clean, wiping out the ink after use; never put one away dirty and they'll last well. I bought mine in 1894.

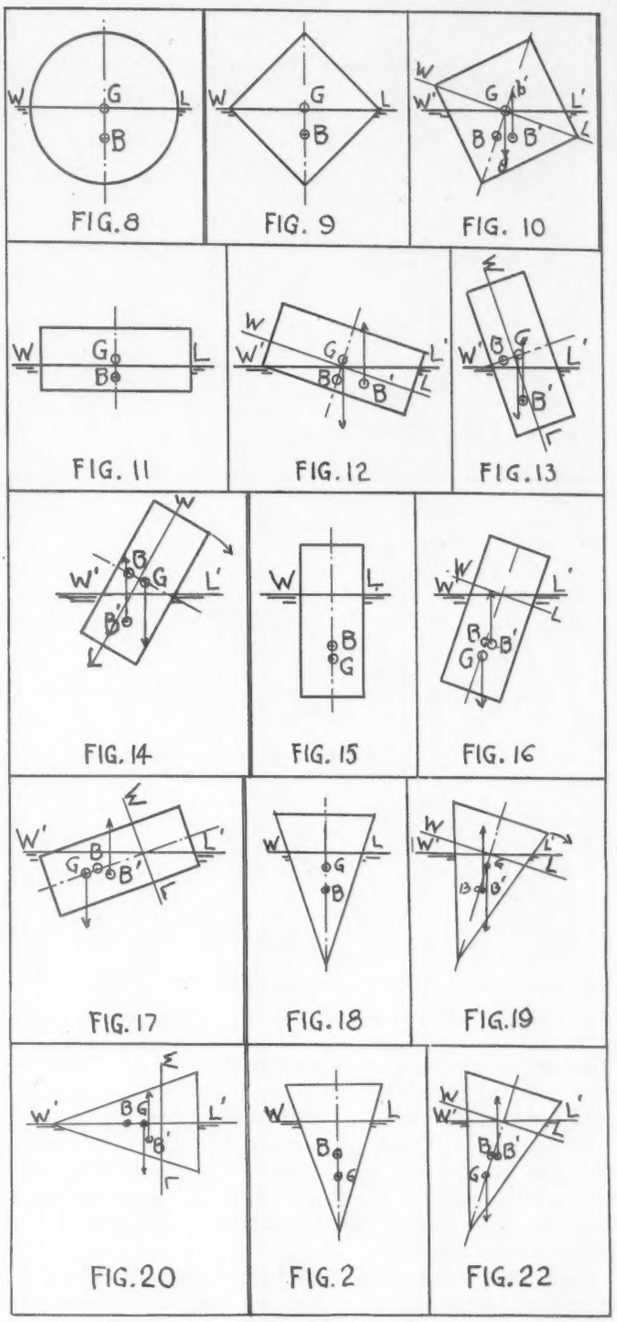
Get good drafting pencils, 4H to 6H, with softer ones for sketching. Sharpen them with knife and sandpaper block; a round point for ordinary use and a chisel point for drawing lines. Use good black, waterproof drawing ink; Higgins is the standard in most drawing offices. Keep the bottle tightly corked when not in use. Get a thin, ten cent chamois from the Five and Ten for a penwiper.

You'll do a lot of rubbing out, so get a good eraser (I like the green ones), a draftsman's erasing shield and a chunk of Artgum for cleaning up. Dirt soon gathers on a drawing. Drawing paper should be of good quality, tough and smooth. For night work, the green paper is easy on the eyes. Thumb tacks to hold the paper on the board though some like Scotch tape.

For tracings, there are several brands of paper that work well though some kinds turn yellow and get brittle after a time. Tracing cloth is the best thing for elaborate tracings though it is quite expensive. It must be "scrubbed" with pounce, powdered chalk, fuller's earth or similar material. Cross section paper is useful and may be had in various sizes and divisions. The transparent kind is the best. It will be found useful in getting the areas of irregular sections, counting the whole squares and estimating the partial ones. A protractor is handy for laying off and measuring angles. If you're ever stuck without one, remember that the Traverse Tables are all about right angled triangles and turn to Table II in your Bowditch.

But there is no tool so useful to the naval architect as the planimeter. It measures areas of irregular shape and will save a lot of finicky detail work, counting the squares of cross section paper or dividing the area to be measured into triangles and computing and summing their areas. If you design more than one or two boats, a planimeter will pay for itself in the time it will save you. You can compute the displacement of a sketch set of lines in a few minutes and see just where you're at before doing a lot of useless work. Keep it in its case when not in use and take care of it; it's an instrument of precision and should be carefully handled.

Get a kid's copy book about 7½″ by 8″ from the Five and Ten, the kind with "quadrille" ruling; use it for tabulating the calculations and for sketching. And make all your calculations clear and plain, so that you can look at them five years from the time you made them and know what you did, and why. Memory is apt to be treacherous in such matters.



The stability of a few simple forms of floating bodies

A slide rule will be handy for checking, though it is not really a necessary tool. The drug store 50-cent kind will do for much of the work. And a four place table of logarithms (again, see Bowditch) and one of squares, cubes, square roots and cube roots will be handy.

The Three Plans

One difficulty of drawing the plans of a boat is that you have to depict all the features of a three dimension solid body on a flat, two dimension piece of paper. If the solid is rectangular, like the box shown in Fig. 1, this is simple since a side view, a plan and an end view will define it, as seen in Fig. 2. Since sides, bottom, top and ends are all bounded by straight lines, and opposite sides are parallel, the three plans indicate the box clearly. A right cylinder could be shown on two views, one from the side and one from the end.

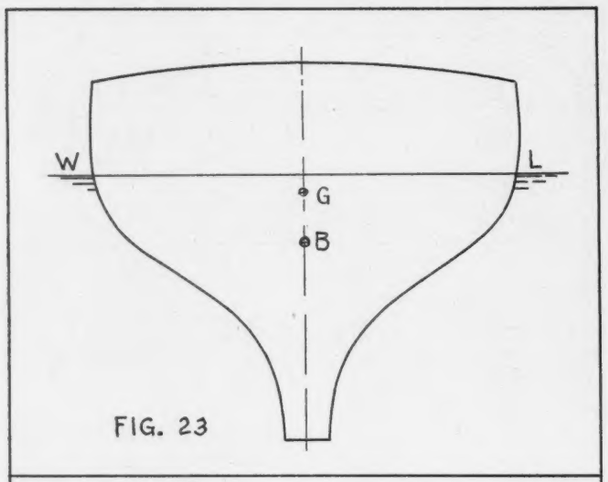


FIG. 23

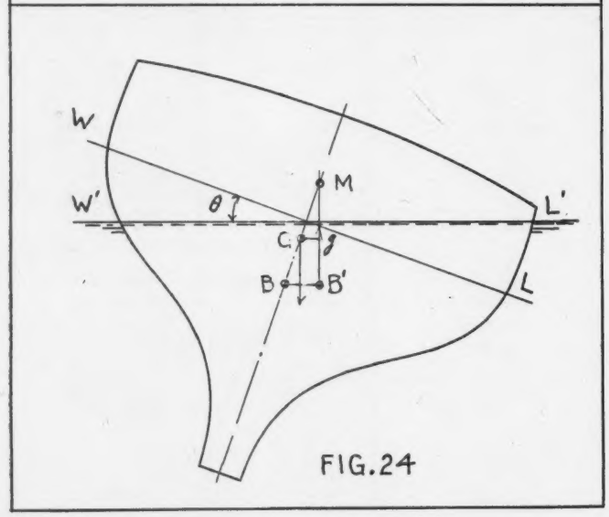


FIG. 24

A yacht form heeled, with CG, CB and metacenter

But when we come to a complicated form like that of a boat, with all its compound curves, such simple drawings are insufficient. We need a lot of sections between the ends and a lot more between bottom and top. The three projections just made would give us merely the profile, the deck plan and the shape of the largest section. To get the shape of the boat at any intermediate point, we must have a section at that point.

Take a half model (Fig. 3) and make a saw cut along the water line AA at which the boat will float and separate the two parts (Fig. 4). Looking from below, the saw cut A′A′ will show quite a different shape from the deck outline. In the two other views of the model, it will show as a straight line. Now put the two parts of the model together again and make another saw cut B B, parallel to the center line. This will show as a straight line in the plan and the end view but will be a curve B′B′ in the side view (Fig. 5). These two saw cuts will give quite a bit of information about the shape of the model and additional cuts parallel to them will help still further to define it. Now make another cut at right angles to the center line and the water line as at C (Fig. 6). This gives the shape of the cross section at C; other cuts parallel to it, such as D & E will give the shape at their respective places. For convenience, we'll put the two end views together and, since both sides of the boat are alike, we need show only one side.

These three systems of saw cuts, if transferred to the drawing, will give a good idea of the boat's form. Each set shows as straight lines in two of the views and as curves in the other. The side view is known as the sheer plan, the view from below as the half breadth plan and that from the ends as the body plan. Together, they are known as "The three plans." In addition, other saw cuts may be made at an angle with the center line so that they cross the station lines in the body plan as nearly square as possible. These are known as diagonals and are extremely useful in fairing the boat. The cuts parallel to the line on which the boat floats are the water lines; those parallel to the center line are buttock lines, and those at right angles to the center line are sections or stations. See Fig. 7.

All three of the plans must agree with each other. At any station, for instance, the height from the water line to the sheer line must be the same in both sheer and body plans. The half breadth (distance from the center line) of the same point must be the same in both half breadth and body plans. The height of the intersection of a buttock line and a station must be the same in sheer plan and body plan, and so on. On a diagonal, the distance from the center line, measured along the diagonal to a station, must be the same as the distance along the same station to the developed diagonal as shown in the half breadth plan. Getting all the spots to agree is a tedious but necessary job (known to the mould loftsman as "regulating") since a change in any one point on any plan means a change in the other plans. The half breadths in the body plan, for instance, must be transferred to the half breadth plan and checked back and forth until all the points agree and all of the curves drawn through them are smooth, with no "humps and hollows."

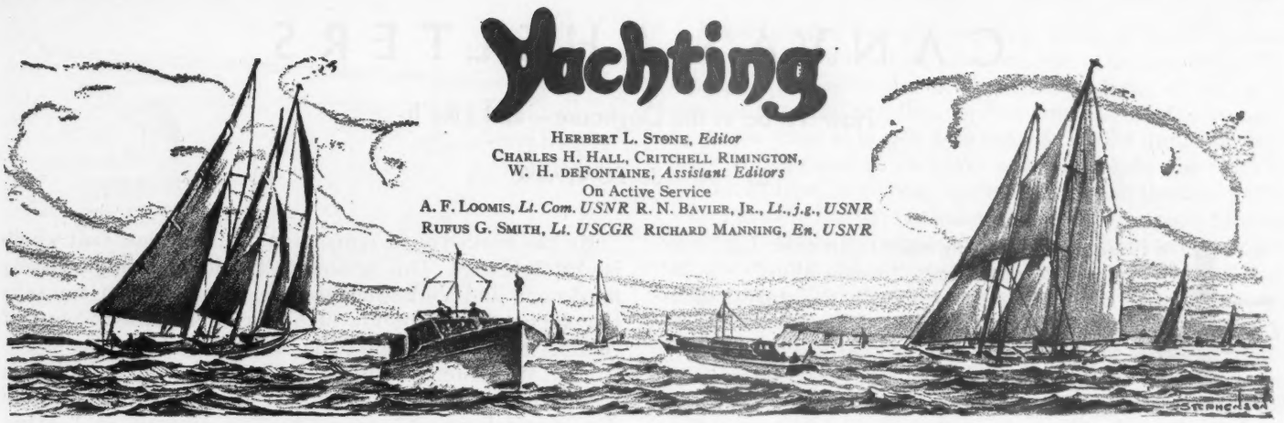
In laying out the paper for a set of lines, accuracy is essential. First, decide on the scale to be used and sketch the layout of the plans on the paper. Then draw the water line of the sheer plan, with room enough above it for the above water part of the hull. Then draw the base line below this and parallel to it, usually through the lowest point of the keel or just below it, an even number of feet from the water line. Still lower is the center line of the half breadth plan, with room enough for the half breadth of the hull and a little to spare. Below this center line there must be room enough for the developed diagonals and also for the batten weights above the lower edge of the drawing board. The body plan may be drawn at one end, though it is better to have it on a separate sheet of paper. Draw the intermediate water lines in the sheer plan and the buttock lines in the half breadth plan. Then divide the water line into a number of equal intervals, 8, 12 or 16, and draw the station lines. Check all measurements carefully before inking in the lines and correct where necessary.

The intervals between the stations will probably not be even feet or inches so lay off the positions of the stations from one end instead of working from one to the next. If the common interval is, say, 3′ 5¼″, make a little table: 3′ 5¼″, 6′ 10½″, 10′ 3¾″, 13′ 9″, etc. Then lay off these distances from one end and the result will probably be more accurate than if you measured the 3′ 5¼″ spaces from one station to the next. When all checked, both for intervals and squareness, ink the lines in with the ruling pen, set fine, and you're ready to begin. Don't draw the diagonals yet but wait until the body plan is sketched in. Then you can draw them where they'll do the most good.

The Naval Architect's Problem

Before going further, let's consider the problems facing the designer in getting out the plans for a new yacht. First, she must float, and float at her designed lines. If she is too heavy, she will "go over her lines," that is, sink down in the water and, on account of her increased displacement, be

(Continued on page 88)



Yachting

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EDITORIAL

That Missing Link in the Intra-Coastal Waterway

AT LAST it looks as if we were in a fair way to get that missing link in the East Coast Intra-Coastal Waterway, the highly important connection across northern New Jersey linking the Delaware River with the Raritan and New York Bay. It seems, however, that it has taken a war, with a vital fuel shortage, to bring home to the legislators the need of such a canal to the peoples of the East Coast. Yachtsmen and local shipping interests have been pointing out this need for years, but without effect.

Now, at last, a bill has been introduced in Congress by Representative McCormack (H.R. 1880) and referred to the Committee on Rivers and Harbors. The bill provides for the construction of a ship canal from a point on the Delaware River near Bordentown, N. J., to Sayreville, on the Raritan River, a distance of approximately 33 miles. The proposed channel would have a bottom width of 250 feet and a depth of 27 feet. The new canal will fill the functions of the old Delaware and Raritan Canal, discontinued some fifteen or twenty years ago, and never replaced. This failure to do so has prevented the Eastern Intra-Coastal Canal, on the modernizing of which the government has spent much money, from becoming fully effective in providing a safe passage for petroleum barges and other bulk carrying vessels to vital centers of the Northeast Atlantic Coast. If the proposed waterway had been completed when the war started, it would have relieved the shipping and fuel situation to a marked extent.

Hearings have already been had on the bill, and every yachtsman should mark his approval by writing the House Committee on Rivers and Harbors of the 78th Congress, Washington, D. C.

Keep Your Shirt On!

ONE OF the treasured prerogatives of the citizen of any democracy is the right to gripe. Be it on the quarterdeck, in the crew's mess or at a town meeting, there is scarcely a moment when some worthy individual is not boldly expressing a dissenting opinion — maybe about shore leave, the increase of taxes or the rationing of coffee. This right to disagree is normal and proper yet, during a time of war, such personal plaints are more apt to be destructive than constructive.

From now until the day of the Axis defeat, the question of rationing will be an ever present bone of contention. And of all the restrictions imposed upon yachtsmen, the matter of gasoline allowances has become the subject of major importance. On page 20 of this issue, the actual and pending legislation regarding the quantities of gasoline allowed for pleasure boats is described in full. To many readers, these regulations may not seem as stringent as were expected; to others, they may appear unusually severe.

In any event, it must be remembered that the OPA is doing the best it can about a difficult job, and that every assurance is given that restrictions will be lightened just as soon as it is physically possible to do so. Our prediction is that, before the season is much older, yachtsmen will be pleasantly surprised by the amount of gasoline they will be allowed. In the meantime, keep your shirt on.

Calling All Hands

WARNING that the tightening labor situation in inland waterway transportation threatens to become critical in the near future because of proposed oil transportation over lake and inland routes, the Office of Defense Transportation has sent out an appeal to men in non-essential occupations, who have actual sailing experience, to accept employment in some essential water transportation activity.

"The proposed large scale expansion of oil transportation over inland routes will have its repercussions throughout the inland waterway transportation industry," the Commission declared. "It will be necessary to move many experienced men from other vessels to command and operate the newly-constructed boats, and they must be replaced. Moreover, the urgency of the matter has been covered by a recent memorandum of the Selective Service which pointed out that our expanding merchant marine increasingly demands the services of every available man with water transportation experience."

There is more than meets the eye in this ODT appeal. Many are the men who have repeatedly expressed the desire to participate actively in some nautical aspect of the war's prosecution, but who, for reasons of physical disability or scholastic requirements, have been unable to sign on in one of the various branches of the Armed Forces.

If you have had a broad experience in sail and/or power vessels, and know yourself to be competent in inland or coastal piloting, then it's our guess that you are the very man they are looking for. A uniform, other than being a visible symbol of active participation, is not the only badge of military or naval service, for a dirty pair of dungarees or an oil stained windbreaker is no less honorable raiment for the seagoing man in wartime. An oil barge or a scow may not have the dash and color of a PT or a sub-chaser, but any ship — however humble — is today an important member of the Allied fleet. Men to man these ships are needed.

If you *really* want to go to sea, here's your chance!

CANVAS SHELTERS

How To Be in the Doghouse — and Like It

By HAM de FONTAINE

IT'S funny how one thing leads to another. Last year I wrote about my "dream ship" — a 38′ ketch named *Halcyon*. In the story I mentioned that I had some ideas about canvas shelters, doghouses, or what you will. Shortly thereafter I received a nice letter from Cutler Low, of Hingham, who said that many of his fireside yachting hours had been devoted to working out a satisfactory canvas doghouse for his 35′ yawl *Ducky*, and wound up with the suggestion: "Let's dig up some knowledge." I thought so well of the idea that I have requested readers to send along their pet schemes and some of them are reproduced here for your information.

One of the simplest and best shelters that I have seen for a small, open boat, is the one that Gil Dunham developed for his Stout Fella fleet. I have had a good deal of personal experience with this one and can vouch for the fact that it is a most practical cover. It makes a fine shelter in bad weather or for the night, is easy to set up and to take down. It folds into a compact bundle, and stows well out of the way.

On hot days, when you lie at anchor for a picnic lunch or a swim, you can fold back the forward flap and allow the air to enter and cool off the interior, yet in bad weather this flap effectively keeps out the rain. It is a great comfort to be able to leave an open boat at her mooring with the assurance that she will not be half full of rain water when you return.

Where the forward end of this cover goes around the boom, it is provided with a wrapping, such as you find on sail covers at the mast; this makes that joint watertight. The overlap of the canvas and the low coaming on the cabin top, both of which are equipped with Dot fasteners, finish off the forward end. The method of securing the sides of this awning is simple, secure and permits it to be stretched quite taut; it is also easy to make fast or cast off these lanyards. They are eye spliced to grommets in the edge of the canvas at each seam, lead through a screw eye at the rail and thence back to an iron ring which is sewn to the awning about 6″ in from its edge. Here the lanyard is secured by a simple, single bow, a knot that will not jam and can be released by a pull. Two people can easily set up this awning in five minutes.

Liggett Gray, of Riverside, is also a Stout Fella enthusiast and, of those sailing this class, he speaks with more authority than any I know, for he and his wife have actually gone off cruising in their *Jolly Fun*. You may recollect an account of their experiences in the August, 1942, issue of YACHTING.

He has worked out a refinement of the original tent which is sketched here. This arrangement provides ample sitting headroom, and allows for more ventilation. Mr. Gray says that he has found the low lifelines give an added feeling of comfort when out sailing with youngsters aboard.

Each stanchion has an eye at the upper end and a line is rove through these, from a pad eye aft to a hitch around the shroud and down again to another pad eye forward. Leather patches are sewn to the under side of the tent where it is in contact with the stanchions and lanyards are provided to secure it at each stanchion. It is possible to set up this tent when under way by swinging it straight across from the supports on one side to those on the other. This has proved a boon in blistering Long Island Sound weather.

Mr. Gray used ¾″ O.D. brass pipe for his stanchions and fitted cast bronze tops and sockets, from patterns of his own making.

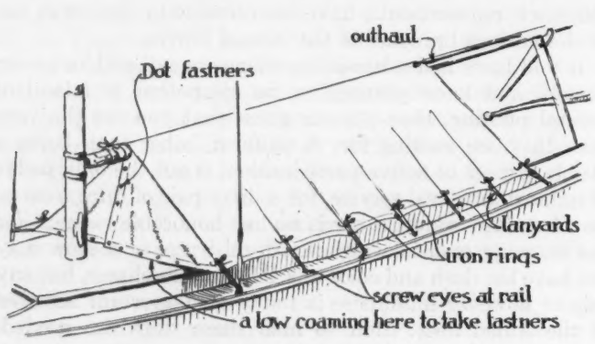
John Ross, of Stratford, who is also a small boat cruising man, sent in the accompanying excellent sketches by Arthur Meloy and says:

"It is quite possible to improvise comfortable sleeping accommodations in a day boat with an ample cockpit. Under existing conditions, with the large craft in service or laid up, there will have to be a lot of improvisation if there is to be much cruising.

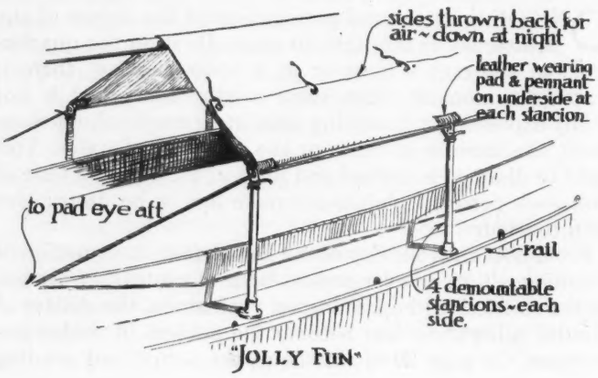
"Last year the writer and a friend made a pleasant week's voyage in a 22′ day sailer equipped with a home-made tent and a pair of collapsible canvas bunks. The manufacture of these two items involved so many small problems and presented such great possibilities that it was good fun designing and building them.

"The idea was to make a serviceable tent which would provide comfortable sitting headroom over the seats yet be easily erected and conveniently stowed. Of course, each boat would present her own problems and the solution suggested here would have to be adapted to fit any other craft. A structure along the lines of the old-fashioned automobile top was the obvious answer. It worked.

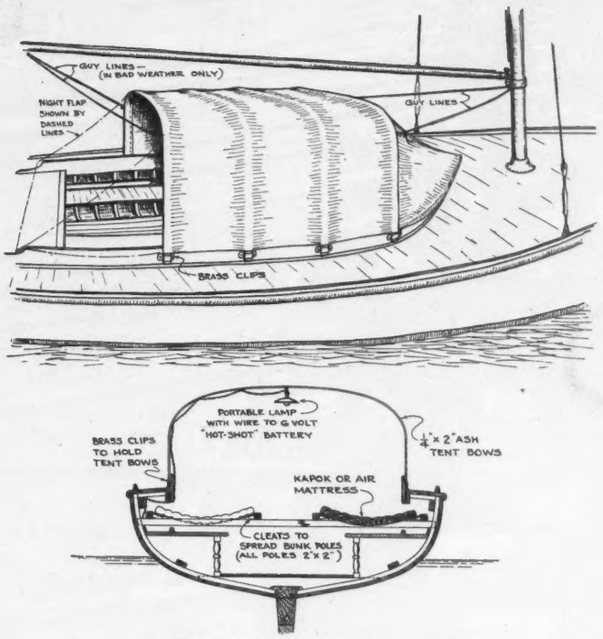
"The frame was carried by four ¼″ by 2″ ash bows spaced about two feet apart. The wood was soaked in salt water a couple of days and formed around blocks nailed to a ping-pong table; the attic floor would have done as well. If the material is straight-grained, it will take a fairly sharp bend without disaster; once the wood has dried, it will retain its shape. Brass cleats, into which the bows would slide easily, were screwed to the bottom of the outside of the coaming.



"STOUT FELLA"


sides thrown back for air - down at night
leather wearing pad & pennant on underside at each stancion
to pad eye aft
rail
4 demountable stancions - each side

"JOLLY FUN"


GUY LINES— (IN BAD WEATHER ONLY)
NIGHT FLAP SHOWN BY DASHED LINES
GUY LINES
BRASS CLIPS
PORTABLE LAMP WITH WIRE TO 6 VOLT "HOT-SHOT" BATTERY
BRASS CLIPS TO HOLD TENT BOWS
¾" x 2" ASH TENT BOWS
KAPOK OR AIR MATTRESS
CLEATS TO SPREAD BUNK POLES (ALL POLES 2"x 2")

ROSS TYPE SHELTER

This done, a substantial canvas cover, sewed on the household sewing machine, was fitted over the bows. The canvas should go well below the top of the coaming. The tent was erected in a few minutes by merely sliding the ends of the bows into the cleats. When the bows were removed from the cleats, they telescoped, canvas and all, and the whole stowed around the after end of the cockpit coaming snugly.

"The forward and after ends of the tent were provided with flaps that could be secured in place at night or tossed over the top, making an awning for daytime use. The forward flap was given enough lap so that a driving rain could find no entry. The after flap, when open, bared a couple of feet of cockpit so a fellow could bounce in and out from the deck without wriggling. Iron rings were sewn into the fabric on the outside bows for guys to the mast forward and the boom aft when a blow threatened."

Cutler Low writes that *Ducky's* doghouse will shape up as follows:

The forward end is supported by a fixed gallows frame over the after end of the house. The attachment to the deck is by zippers, laid out so that the area of the cabin top to the forward side of the companionway is included. The fixed sides of the zipper fittings are secured under a suitable batten on the outside of the cockpit coaming, yet can be worked from inside. The space on either side of the companionway is useful for stowing wet oilskins, etc., in bad weather.

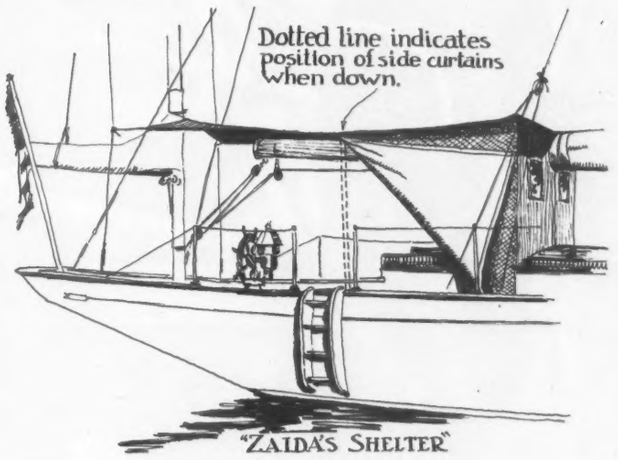
The side curtains are secured to the top by zippers so that they can be entirely removed if desired. The after end of the top has a wide athwartships pocket so that a stiff batten can be slipped in to provide rigidity at this point. The after corners are secured to the mizzen shrouds with lanyards.

Transparent plastic windows are fitted in the front and side curtains. The after end is left open for quick exit.

Mr. Low's doghouse agrees in almost every respect with that on the famous yawl *Zaida*, shown in the accompanying sketch. As she was long the pride and joy of none other than that world-famous sailmaker, the late George Ratsey, whose canvas equipment was, naturally, the last word in such gear, it is probable that there is not much room for improvement.

Bill Lundgren has equipped his sloop *Butterfly* with an ingenious combination of awning and dodger. It is probably not adaptable to many boats but might be made a source of comfort to the man at the wheel.

Butterfly has a permanent gallows frame about 2' forward of her wheel and reaching from one side of her cockpit to the other. On the after side of this frame a piece of canvas is secured and neatly rolled. In bad going, when the spray is flying, or when it is cold, this canvas may be dropped vertically and secured at its lower edge and along the sides to form a dodger. In glaring, hot weather, when the man at the wheel usually has to stay out and be roasted, a piece of brass pipe, ¾" O.D., is dropped into sockets at the after corners of the cockpit. These pipes have cast bronze eyes at their upper ends. They are of such a length that, when the canvas is stretched taut from the gallows frame and is secured to the eyes with suitable lanyards, the resulting awning will be parallel with the water line. This little patch of canvas is so small that it may be carried, even in foul weather, to protect the helmsman from heavy rain, as well as from the broiling sun. While few boats have their gallows frame located in this position, the idea could be carried out in some other way. It certainly should be worth a try.



"ZAIDA'S SHELTER"

SEAMANSHIP TRAINING CORPS NEEDS YACHTS

STILL another reason for getting the yacht overboard this summer lies in the use she can be in helping the Seamanship Training Corps give some practical education to those high school boys taking the pre-induction course in elementary seamanship.

As mentioned in these columns last month, courses in seamanship are being set up in the high schools of the country for youths from sixteen to eighteen years of age. Already the movement is well under way, sponsored by yachtsmen in various yachting centers, and with the approval of the Navy, Coast Guard and the Maritime Commission. To supplement the elementary classes ashore, which will be conducted in many cases by yachtsmen volunteer instructors, there will be great need, when spring and summer weather arrive, to give the boys some experience afloat. This can be done during week ends or at times to fit the convenience of yacht owners.

Here is a chance for everyone who owns a boat and can get her afloat to help in this vital work of training those boys who are likely to go into the Navy, Coast Guard or Merchant Marine when they reach draft age. It is a movement to which every yachtsman should be glad to contribute. Percy S. Weeks heads the National Seamanship Training Committee, whose headquarters are the New York Yacht Club, 37 West 44th Street, New York.

Other local committees are being formed in centers such as Rochester, Chicago, Boston, Los Angeles and Western Connecticut. If you are willing to help, come warm weather, register your name and your boat at Committee headquarters-

"ASH BREEZE"

Pancake Diesels, geared turbines and high pressure boilers are all very well, but when it comes to guaranteed, trouble-proof propulsion, there is nothing quite like an "ash breeze."

At the Coast Guard Training Station at Hoffman's Island, New York Harbor, training in the use of small boats is a "required subject" in every course. There is no telling when a sailorman will need to prove his ability to handle an oar in the roughest of seas, and this is but another phase of nautical training where practice makes perfect.

Above, a 48-man rowing frame provides the first lessons in avoiding "crab catching." Left and below, ten-oared whale boats, with a chief petty officer at each steering oar, give their crews a taste of what open water feels like and helps to develop practical experience in boat handling — as well as lame backs and blistered palms.

"ASH BREEZE, progress made with oars in a calm. (Sometimes called a White Ash Breeze.)"
— Gershom Bradford,
"A Glossary of Sea Terms."

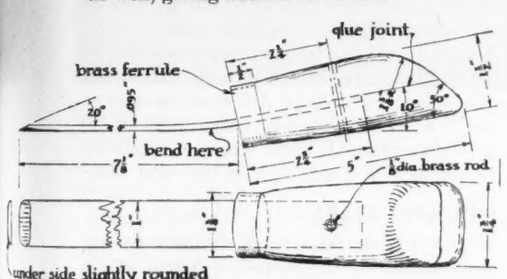
International News Photos

"GADGETS & GILHICKIES"

A Useful Tool

▶ Not the least of the joys of boating are the satisfactions of the senses, the delicious aroma of fresh cedar shavings, the smell of tar and oakum, the song of the whirring buzz saw, and all the other sights, sounds and smells that go to tickle the sensibilities of the real lover of boats. Another satisfaction, that can be enjoyed only by those who were blessed by their Creator with a certain manual dexterity, is that of working with tools and wood. The quintessence of this enjoyment is to work with tools of your own making; tools that you have devised to fit your hand and the work to be done, that balance properly and are of a quality such as cannot be purchased ready made.

The accompanying sketch gives the dimensions of a chisel that I made for myself many years ago. Its original purpose was for shaping the hulls of models and it performs this function supremely well. Over the years, however, I have found that this tool is one of the most useful in my whole collection, not for model making alone but also for any job that requires close and accurate work. The shape of the handle is such that it gives the user an unusual degree of control over the cutting edge, and the long shank, or blade, allows sufficient room so that the tool may also be grasped firmly by the left hand as well, giving additional control.



Modelmaker's Chisel

The blade is made of a fairly high carbon tool steel, which, while easy to file to shape before it is hardened will, after hardening, hold an edge like no carpenter's tool that I have ever seen. The process of hardening is simple, and consists simply in heating the end of the tool to a bright red; it is then plunged at once into a pail of cold water and stirred around to cool off as quickly as possible. This will make the end so hard that a file will have no effect upon it but it can readily be ground on either a grindstone or a carborundum wheel, and finished on an oilstone. Care must, of course, be taken that the blade is not overheated when being ground, as this will draw the temper and spoil the edge. When using a carborundum wheel, it is advisable to have a receptacle of water handy so that the tool may be cooled off during grinding from time to time.

In whetting this chisel, I use two oilstones; the first a medium India and the finishing stone an Arkansas. On the first, a little pressure is used and on the finishing stone, almost none. Use plenty of good light oil and wipe the stones dry after each using. When not in use, they should be kept in suitable boxes. I have found that in sharpening this tool I get better results by rubbing it from side to side, and rocking it on the stone so as to reach every part of the edge evenly. This is unconventional but it gets results. A final super finish may be imparted by drawing the edge along a piece of leather, I use an old razor strop for this operation, and it leaves the edge perfect.

The handle is made of two pieces of oak glued together on their center lines as indicated. The heel of the blade is let into the lower half and should be a close fit. It will pay to take great care in fitting the blade to the handle so that it will never become loose. Shape the handle roughly, with a rasp, to suit your hand, but do not finish it until after it has been glued. Use a good grade of glue (waterproof preferred) and clamp the two parts together, with the blade in place. Allow it to set over night. The handle may now be finished, using coarse and fine sandpaper; fitting the brass ferrule and drilling through and through for the brass rivet, as shown. This is simply a piece of brass rod about $\frac{1}{8}$" diameter, riveted over a burr, or washer, at each end. These burrs should be let in flush with the surface of the handle. After riveting, file off the ends flush and smooth. Give the handle two coats of white shellac.

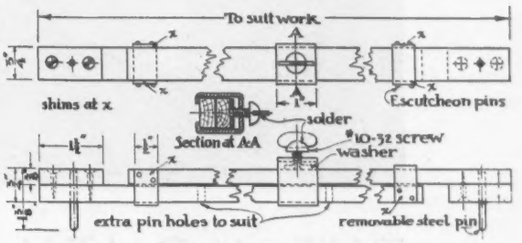
After the tool is completed, bend the blade to an angle of about 10° with the handle, as shown. This allows the tool to lie flat while being used and makes for fine, smooth cuts.

For Accurate Measurement

The measuring rod sketched is the result of a number of years of fooling around with makeshifts. I used to use two sticks, clamped together, as a measuring tool, where extreme accuracy was necessary. This worked well enough but was frequently awkward and annoying, so I devised the one shown. It has now been in use on several jobs and has proven quite satisfactory. In addition to its use as an inside caliper — for that is what it really amounts to on a large scale — the addition of the removable steel pins permits outside measurements as well, thus greatly increasing its usefulness. These pins, by the way, are just short pieces of tenpenny nails, cut off and with the ends filed round, as indicated. They must be a push fit in the holes provided for them. You will find it useful to drill a number of holes along the lower stick. This allows the pins to be spaced closer together in case shorter measurements are to be taken.

The construction of this gadget is simplicity itself. It consists principally of two pieces of hard wood (birch is good) $\frac{3}{8}$" by $\frac{3}{4}$" and long enough so that when extended — allowing for an overlap of 6" — they will measure the greatest dimension you have to deal with. These sticks are clamped in position by the sliding clamp and are guided at each end by U-shaped metal pieces. All the metal used should be about $\frac{1}{16}$" thick (or thicker).

The center clamp is made divided at the bottom, as shown, to permit the pins to pass between its ends if necessary. All the metal parts are to be a loose fit on the wood parts, to permit them to slide easily and without binding. It will be necessary to place shims of heavy drawing paper, or thin cardboard, between the U-shaped guides and the sticks to which they are nailed; this is to provide the necessary clearance for the other stick to slide.



A Handy Measuring Rod

The locking screw is made from an ordinary No. 10-32 round head machine screw. The end is turned or filed down to fit loosely in the hole in a small washer. This washer will have a countersunk hole so that, when the end of the screw is inserted and peened over lightly, it will permit the washer to swivel freely. This washer should be about $\frac{1}{16}$" thick to allow sufficient material for the countersink. After the screw and washer are assembled, the end of the screw should be filed off so that it does not protrude. The object of this is to provide a method of locking the two sticks in position without marring their surfaces, as would be the case if the screw were not provided with a swivel end. The thumb screw arrangement shown in the sketch is one of my own devising. It is simply a piece of brass of the proper thickness, soldered into the slot of the screw and filed to the desired shape. A regular commercial thumb screw would be the best thing for the purpose, but this makeshift does well as a substitute.

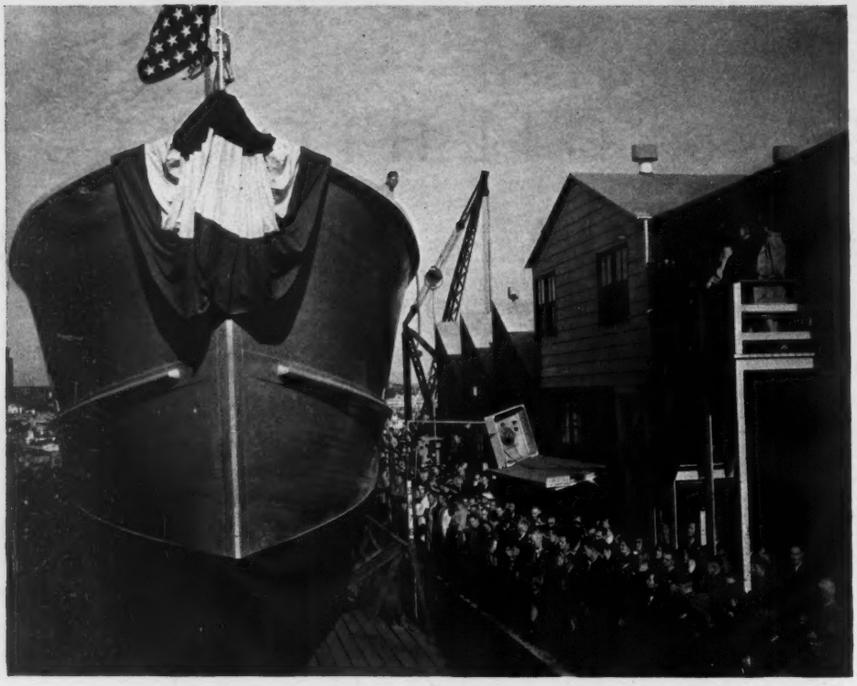
The two small blocks of wood at each end of the measuring rod are to act as stops and also, by bringing a sharp, square edge close to the work to be marked, permit more accurate marking. In marking work to be cut always use a chisel pointed pencil, which must be kept sharp; if extreme accuracy is needed, use a sharp knife as a marker.

▶ Next month I will tell you about some other tools that I have made, and which I have found to be extremely useful.

A Correction

▶ On page 56 in the March issue of YACHTING I gave you a description and drawing of a Napier Diagram Reader, which was sent in by Ralph Weller, of Rochester. Mr. Weller has written to say that the dimension $2\frac{3}{8}$" given for the base of the triangle should have been $2\frac{19}{32}$". Sorry, mates, but accidents will happen. I hope it has caused you no inconvenience.

HAM DE FONTAINE



The occasion of a triple-threat to the Axis by Hubbard's South Coast Company. YMS 317, the first ship of its third series, slides down the ways on the day the third consecutive Army-Navy "E" was received. Kent Hitchcock Photo

May 1 — Third Annual I.C.Y.R.A. Freshmen Dinghy Championships; Brown University Y.C.
May 1–2 — Third Annual New England Member Dinghy Championships, U. S. Coast Guard Academy Alumni Bowl; U. S. Coast Guard Academy B.C.
May 8–9 — Seventh Annual I.C.Y.R.A. National Dinghy Championships, Henry A. Morss Memorial Trophy; Nautical Association of M.I.T.
May 15–16 — Third Annual Middle Atlantic Member Dinghy Championships, The America Trophy; Navy A.A.
May 16 — Twelfth Boston Dinghy Club Intercollegiate Challenge Cup Regatta; Nautical Assn. of M.I.T.
May 22 — Dual Meet, U. S. Coast Guard Academy *vs.* U. S. Naval Academy, Annapolis, Md.

THE MONTH IN YACHTING

CALENDAR

April 10 — Shakedown Cruise, power yachts, Seattle Y.C.
May 2 — Opening Day Regatta, Seattle Y.C., sail and power yachts.
May 23 — Shakedown Race, C.B.Y.R.A., Maryland Y.C., Baltimore, Md.
May 30 — Swan Point-Love Point Race, Cruising, Racing and Delta Classes, C.B.Y.R.A., Gibson Island Y.S.
August 8–11 — I.L.Y.A., Anniversary Regatta, Put-In-Bay, Ohio.
August 14–15 — Annual South Shore Regatta, Vermilion Y.C.

Lake Michigan Y.A.

May 28 — Chicago-Milwaukee Race, Milwaukee Y.C.
May 30 — Regatta, Milwaukee Y.C.
June 19 — Annual Michigan City Race, Columbia Y.C., Chicago.
June 26–27 — Star Class Invitational Regatta, Jackson Park Y.C., Chicago.
July 2 — Annual Saugatuck Race, Jackson Park Y.C., Chicago.
July 4 — Annual Lake Macatawa-Chicago Race, Chicago Y.C.
July 3–4–5 — Star Class, Sterling Morton Trophy Race.
July 17 — Chicago-Mackinac Race, Chicago Y.C.
July 31-August 1 — Virginia Trophy and Milwaukee Journal Regatta, Milwaukee and South Shore Yacht Clubs.
August 5–6–7 — Lipton, Nutting, Gehrmann Trophy Races for R, S and Tumlaren Classes, Chicago Y.C.
August 15 — Annual Regatta, South Shore Y.C., Milwaukee.
August 23–28 — International Star Class Races, Chicago (tentative).
August 29 — L.M.Y.A. Regatta at Chicago.
September 3–6 — Tri-State Race, Chicago-St. Joseph-Michigan City-Chicago, Chicago, Columbia and Jackson Park Y.C.
September 11–12 — Lutz Trophy Race, Class Q (Eight-Metres to rate as Q's), Jackson Park Y.C.
September 19 — Annual Sheldon Clark Regatta, Chicago Y.C.

Yacht Racing Association of Long Island Sound

(Tentative)

May 29–30 — Open
June 6 — Knickerbocker Y.C.
June 13 — Manhasset Bay Y.C.
June 20 — Larchmont Y.C.
June 27 — Seawanhaka Corinthian Y.C.
July 4 — New Rochelle Y.C.
July 5 — Larchmont Y.C.
July 11 — Indian Harbor Y.C.
July 18 — Larchmont Y.C.
July 25 — Larchmont Y.C.
August 1 — Stamford Y.C.
August 8 — American Y.C.
August 15 — Huguenot Y.C.
August 22 — New York Athletic Club.
August 29 — Port Washington Y.C.
September 5 — Seawanhaka Corinthian Y.C
September 6 — Larchmont Y.C.
September 12 — Indian Harbor Y.C.
September 19 — Manhasset Bay Y.C.
September 25 — Open

Intercollegiate Yacht Racing Association

(Spring Schedule)

April 11 — Eighth Annual Spring Invitation Regatta, Lucien Sharpe Memorial Trophy; Brown University Y.C.
April 18 — Third Annual Eastern College Dinghy Championships, George Owen Trophy; U. S. Coast Guard Academy B.C.
April 18 — Ninth Semiannual New England Associate Member Dinghy Championships, I.C.Y.R.A. Trophy; Brown Univ. Y.C. or M.I.T. N.A.
April 24 — Fifth Semiannual Greater Boston Intercollegiates, Harvard Y.C.
April 25 — Third Semiannual Middle Atlantic Associate Member Dingy Championships, I.C.Y.R.A. Trophy; Navy A.A. or Princeton Y.C.

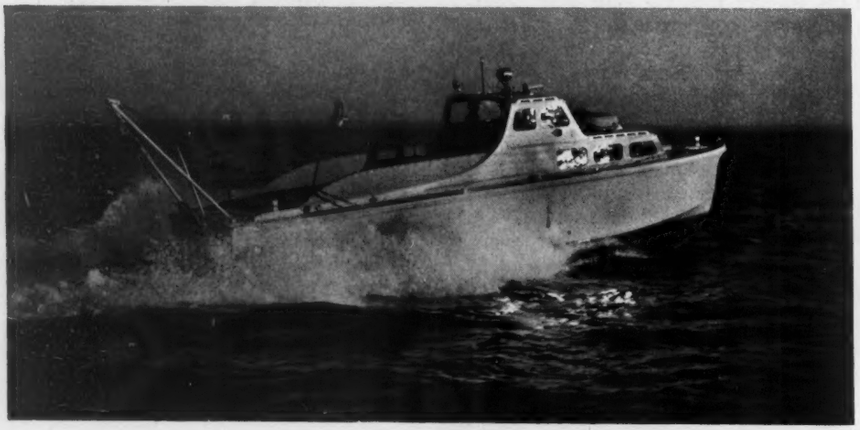
HAROLD TOBEY

▶ Long Island Sound yachtsmen will learn with regret of the death, on February 26th, of Harold Tobey, for many years prominent in boating circles on that body of water. At the time of his death, he was with the Electric Boat Company, of Bayonne, N. J.

From 1920 to the mid-thirties, there were few more active sailors on the Sound than Harold Tobey. Sailing chiefly out of Larchmont, he first came into prominence as owner of the Larchmont O Class sloop *Mirage*. Later, he built the Class R *Secret*, which he sailed with success. When the "Sixes" became prominent, he went into that hard-sailing class and had built for him, in succession, the *Picaro* and the *Dauphin*, the latter being chosen a member of the American team in the British-American Cup Races of that year. Later, he had one of the American One-Design Eight-Metres, the *Aleada*, built for him at Nevins. While owning these racing yachts, he also owned several power cruisers which he used as tenders to his racing yachts, including the well known *Novia*. A former member of the N.Y.Y.C., he was also active in the affairs of the Larchmont Yacht Club, of which he served as vice commodore in 1929 and 1930.

WIN NAVY STARS

▶ Navy Silver Stars were awarded to the commanders of the three PT boats which successfully frustrated the Japs' attempt to retake Guadacanal within recent weeks. The decorations were presented to Lieutenant H. S. Taylor, New York; Lieutenant Robert L. Searles, Leonia, N. J.; and Lieutenant (j.g.) Leonard A. Nikoloric, Englewood, N. J. Admiral William F. Halsey, Jr., and other high ranking officers witnessed the ceremonies.



Left, one of the 36-foot aircraft rescue boats for the Navy recently built by The Oxford Boatyard Company. They are powered with two Sterling Dolphins. H. Robins Hollyday Photo. Right, believe it or not, a seagoing jeep! Described as the most flexible new machine of the war, on land or in the water, is the new quarter-ton four-wheel drive Ford-built amphibian car. It can ford a river, navigate a lake, or even operate in seas that a boat of comparable size can weather. This latter feat is made possible by a device which automatically seals off the motor from water penetration; on land it operates as an ordinary car. The driver of the car on the right bears a startling resemblance to Rod Stephens

NAVAL OFFICERS STILL NEEDED

▶ Men with acceptable qualifications of education and experience may still be commissioned in the United States Naval Reserve, as the recent man power directive stopping enlistments in the 18–38 age group does not affect officer applications from civilians with needed qualifications.

The recent call for applications stressed that candidates must possess either a college degree or unusual qualifications in special fields. Men with heavy construction or stevedore supervision experience especially are now needed and in those fields the college requirements may be waived. A certain number of men through the age of 38, who are college graduates or who have had at least two years of college and special experience in civilian life, are needed for general sea duty. These candidates must pass rigid physical examinations. Men with similar educational background up to the age of 42 may apply for administrative billets in aeronautics. They will release engineers and flying personnel for duty at sea. In addition, well-qualified electrical, mechanical and civil engineers up to the age of 50 are needed.

Applications from officer candidates should be made through the nearest Office of Naval Officer Procurement.

TO OWNERS AND OPERATORS OF SMALL BOATS

▶ The large number of Naval, Coast Guard, and cargo vessels being placed in active service daily is causing an unparalleled demand for Notices to Mariners, necessitating the printing of a great number of copies with the consequent slowing down in the process of delivery and mailing.

Due to war conditions, owners or operators of small boats whose navigation is limited to certain areas and who do not require the complete notice should aid in reducing the volume of printing by applying to the nearest District Coast Guard Officer to be placed on his mailing list for local Notices to Mariners and then inform the Coast Guard or Hydrographic Office, Washington, D. C., to drop their names temporarily from the mailing list for the weekly publication.

CODRINGTON HEADS NATIONAL ASSOCIATION

▶ Two men, widely known in the boating field as well as being leading figures in America's war production effort, exchanged posts as heads of the National Association of Engine and Boat Manufacturers on March 12th. George W. Codrington, vice president of General Motors in charge of the Cleveland Diesel Engine Division, became the new president. In succeeding Henry R. Sutphen, executive vice president of the Electric Boat Company, Mr. Codrington became the third head of the National Association since 1904, when the organization was founded.

Mr. Codrington is responsible for the tremendous flow of General Motors Diesels that are powering submarines, mine sweepers, escort vessels and many other types of fighting craft. Mr. Sutphen, who now becomes first vice president of the Association, a post formerly held by Mr. Codrington, has been its president since 1918. He is widely known as the man chiefly responsible for the development of the Navy's famous PT boats at the Elco plant at Bayonne, N. J. His company also is engaged in a huge program of submarine building at New London.

As a token of long and outstanding service, the executive committee of the National Association presented a handsome tray to Mr. Sutphen at a testimonial dinner held in New York on March 11th. The occasion was the honoring of his 50th year of boatbuilding and his 25th year as president of the Association. The tray was presented to Mr. Sutphen by Ralph G. Klieforth, president of the Universal Motor Company, as a token of the esteem and affection in which Mr. Sutphen is held by his colleagues.

Officers reëlected at the Association's annual meeting were: A. E. Luders, Stamford, Conn., second vice president; J. Stern, Milwaukee, Wis., third vice president, and E. E. Palmer, Cos Cob, Conn., treasurer. Ira Hand, Larchmont, N. Y., will continue to act as executive secretary.

On the surface of the tray presented to Henry R. Sutphen is engraved a PT boat. On its bow, the inscription PT 50 is countersunk in gold, as are the numerals 1892–1942. Facsimiles of the signatures of officers and directors of the National Association are also engraved on the surface of the tray

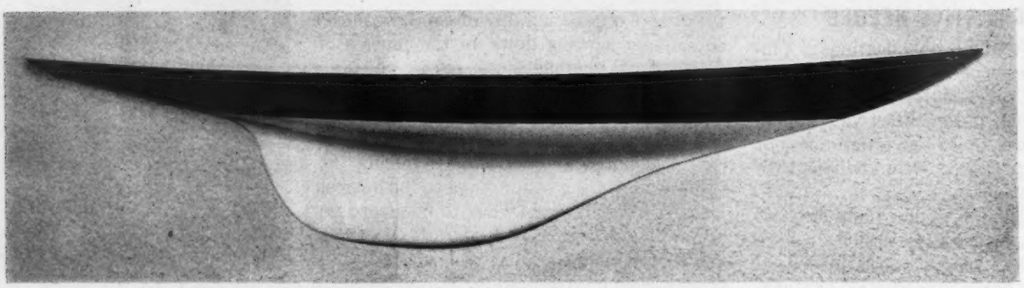
O. S. TYSON NEW COMMODORE OF A.C.A.

▶ Oscar S. Tyson, since 1939 President of the Board of Governors of the American Canoe Association, was elected Commodore of that organization for 1943 in January.

"Chip" Tyson has been a member of the A.C.A. since 1911 and has been actively engaged in racing and cruising canoes in both the Middle Western and Atlantic Coast areas. For ten consecutive years he covered

(Continued on page 92)

Coast Guard Auxiliaryman R. J. Woods (left), designer of the famous Bell Aircobra, argues boat design with his fellow members who are entering Richardson's "Cruiser of Tomorrow" contest



The model of the proposed racer shows a sweet underbody and graceful ends

A POST-WAR RACING CUTTER

An Interesting Design for a Yacht Planned to Take Advantage of Newly Developed Materials and Methods of Construction

By A. E. LUDERS, JR.

IN THE stress of wartime manufacture, there are always new materials brought out and new modes of putting them together. Progress is rapid, changes which would be spread over a number of years of peaceful experiments being made in as many months. After the war is over, we will have all of the new plastics, moulded plywood and other modern materials to incorporate into our yachts. How will we use them and what changes will be necessary in the boats of the post-war yacht fleets? Here is one proposed solution of the problem.

In regard to the boat whose plans are shown herewith, I had been thinking on and off for a long time about an ideal class racing boat that would offer the keenness of one-design racing with the extra thrills and diversion afforded in open classes. She would have to be a boat with an assortment of light sails, to obtain maximum speed under various conditions. Being so busy, I did not have a chance to put my thoughts down on paper, but last fall I started to work on the plans. In picking the size of the boat, it was desirable to have sails that could be easily handled by a small crew. From past experience, we have found that sails any larger than those decided upon require expert crew handling except in the lightest of weather; therefore the big sails are those which could be used only in light weather.

The dimensions of the hull are my conception of the ideal size. They are: Length over all, 36′ 0″; length on the water line, 24′ 0″; beam, 6′ 0″; draft, 5′ 0″; displacement, 6500 pounds; ballast, 4500; sail area, 350 square feet and up. With these sizes in mind, it was most enjoyable to work up a boat without any regard to rules, customer's requirements, etc., and I would be interested to know what the reaction to this type boat will be. She is about the same size as a Six-Metre but with considerably less displacement.

Fairly generous freeboard and easy sections of the hull should produce a pleasant and dry boat to sail, and I anticipate that she should be fast under all conditions. The boat with moderate sail area and displacement usually suffers in light weather; with no rules to think of, this difficulty is overcome by setting light sails, as indicated on the sail plan, which would give her plenty of drive in light weather.

Due to the new methods of construction which are now available, great savings in weight can be made and still a strong hull may be produced.

The lead keel and wood backbone, consisting of stem, keel, sternpost and horn timber, would be of normal construction; but from there on we take advantage of new methods.

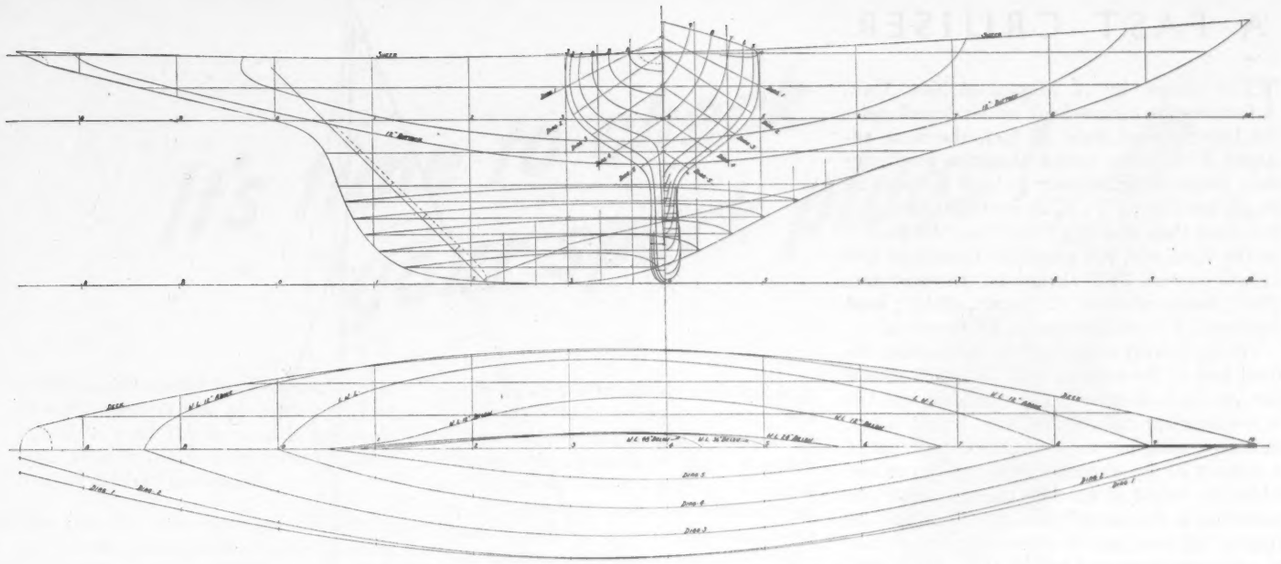
The planking of each side would be moulded, five-ply, over a master mould, and fastened with waterproof plastic glue so that each side of the boat will be put in place as a unit and fastened to the backbone. This construction, being so much stronger than the conventional, method, eliminates the usual frames. Main frames would be spaced every three feet, as shown on the plan, with Weldwood diaphragm floors and Weldwood bracket knees, as shown. In way of the keel, additional frames are shown for local strengthening, and some conventional floors for attaching to the wood keel. The lead keel is attached to the wood with hanger bolts. Additional frames and brackets have also been added in the way of the mast. The construction at the deck edge is different in that the clamp is applied directly to the hull and deck planking, and the two are tied together at this point and kept from racking by the brackets or hanging knees. The deck itself will be ⅜″ Weldwood, in one piece. This will be covered by one of the new type anti-slip deck compositions, thus eliminating the need for a canvas deck. This composition can be touched up as it wears. The line which appears to be a covering board on the deck plan is merely a painted line, to give a finished appearance.

The mast would either be the conventional hollow spruce glued-up mast or, possibly, of laminated moulded plywood, which should be light and strong. The standing rigging would be stainless steel, either rod or wire. There are three tracks on the mast which run right into the cockpit so that sails can be stopped up and bent on, out of the wind and spray, and the mainsail can be changed as quickly as one would change a headsail. Therefore, if you were sailing with a large light weather sail and it started to breeze up, the working mainsail could be hoisted and broken out, and then the light weather sail could be lowered. The same applies to the heavy weather mainsail, which would be used in a real hard blow. There would be three jibs, one the large, light weather jib which is set outside the headstay as indicated, running higher up the mast than the working Genoa. Besides this, there would be a small jib for heavy weather and for leisurely day sailing.

The loose-footed boomless mainsail is not new, and we have previously tried this out on Six-Metre boats, but, of course, there it was not allowed under the rules of the class. This feature allows the sails to be hoisted from below, and makes, in effect, a big jib out of the mainsail. The main sheet is led in the conventional way to an adjustable traveler and quarter lead blocks. None of the mainsails have battens since, with no rules to consider, the sail area is what you care to set, and the advantage gained in battens is negligible. This feature should be a new joy to all hands. We have found by experiments on Genoas that a straight leach can be made to set properly without battens. In light weather, a whisker pole could be used on the mainsail when running but, from past experience, this would not be required in a breeze as the sail would fill out by itself. Sailors who recall running with jibs twining around the jibstay must remember that this occurred only when they were being blanketed by the mainsail.

There would be two spinnakers: the working spinnaker to the lower fore triangle and the huge, light weather, parachute for light air, set to a higher position on the mast. Sail trimming would be accomplished by the usual blocks and winches but new types of strong rayon or linen lines would be used, eliminating the troublesome wire-and-rope splice which is a constant upkeep worry and difficult to handle. Halliards would be led inside the mast and be coiled up on wire spool winches below deck.

We look to great improvement also in the matter of blocks, which have been in the past quite clumsy and heavy. Light weight,



The lines depict a boat of fairly light displacement and a form which should be easy to drive

free-running, blocks of plastic will probably be used in the future. The light permanent backstay to the masthead permits the use of a hinged lever on deck. This is swung from side to side as the boat tacks or jibes, and automatically tightens itself to the required tension. This eliminates any need for winching in and belaying backstays and the worry of not getting them set up properly. This backstay lever can be flipped over by the helmsman. When running, the whip part of the backstay can be released by undoing the snap hook which is attached to a pennant.

I trust that the boat will be of interest to YACHTING's readers and hope that they are as enthusiastic as I am about such a type of boat. I am sure that she will appeal to a great many yachtsmen who would like to combine the advantages of one design and open racing.

The boat is designed by Luders Marine Construction Company, of Stamford, Conn., from whose boards have come a a number of well-known racing yachts.

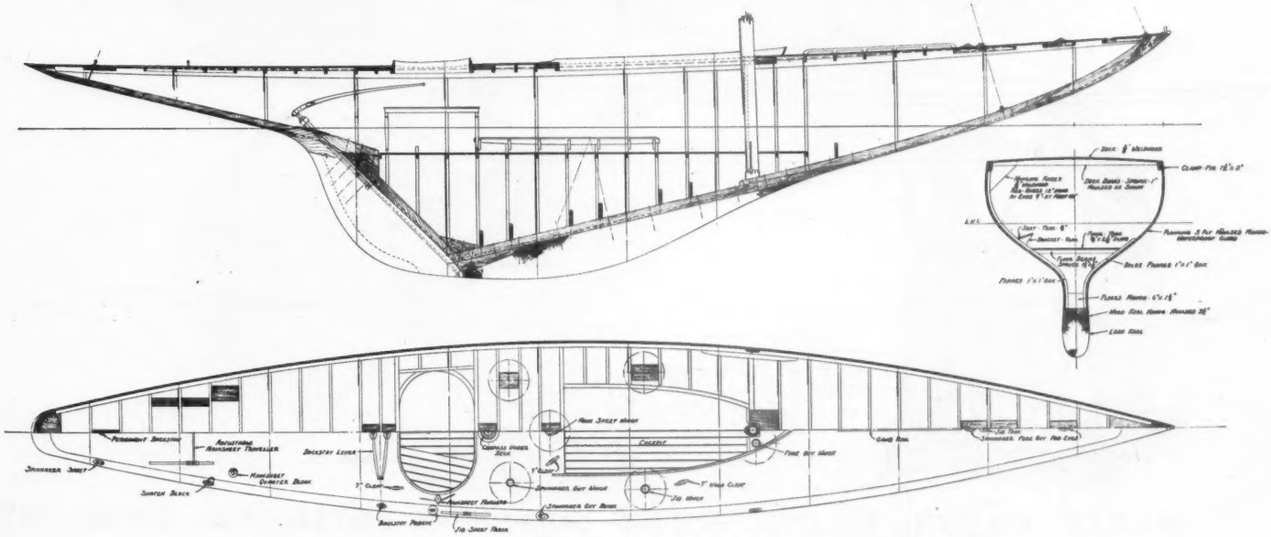
She carries plenty of light canvas and should do well in light weather

WHITE CITY Y.C. ELECTS OFFICERS FOR 1943

▶ Not so long ago, the White City Y.C., of Cleveland, held its annual meeting and again elected Ray Norman to head the organization. He is popular with yachtsmen, is quite a skipper and has, it is declared by his fellow members, done a swell job as head of the club.

Other officers elected are: Stanley Witus, vice commodore; Russell Kline, rear commodore; James McKnight, secretary; Edward Billinghurst, treasurer; Stanley Witus, measurer, and Walter Kinnal as chairman of the race committee. Trustees chosen are: William Robertson, Stanley Witus and Francis Bruce. These three will serve with the three elected last year for two-year terms. They are: Larry Waldrip, John Holland and Walter Kinnal.

Commodore Norman promised the club an active racing season and threatened to swing a heavy belaying pin on the after end of any lazy committeeman now in office.



The construction plans present many novel features. Planking is 5-ply moulded mahogany

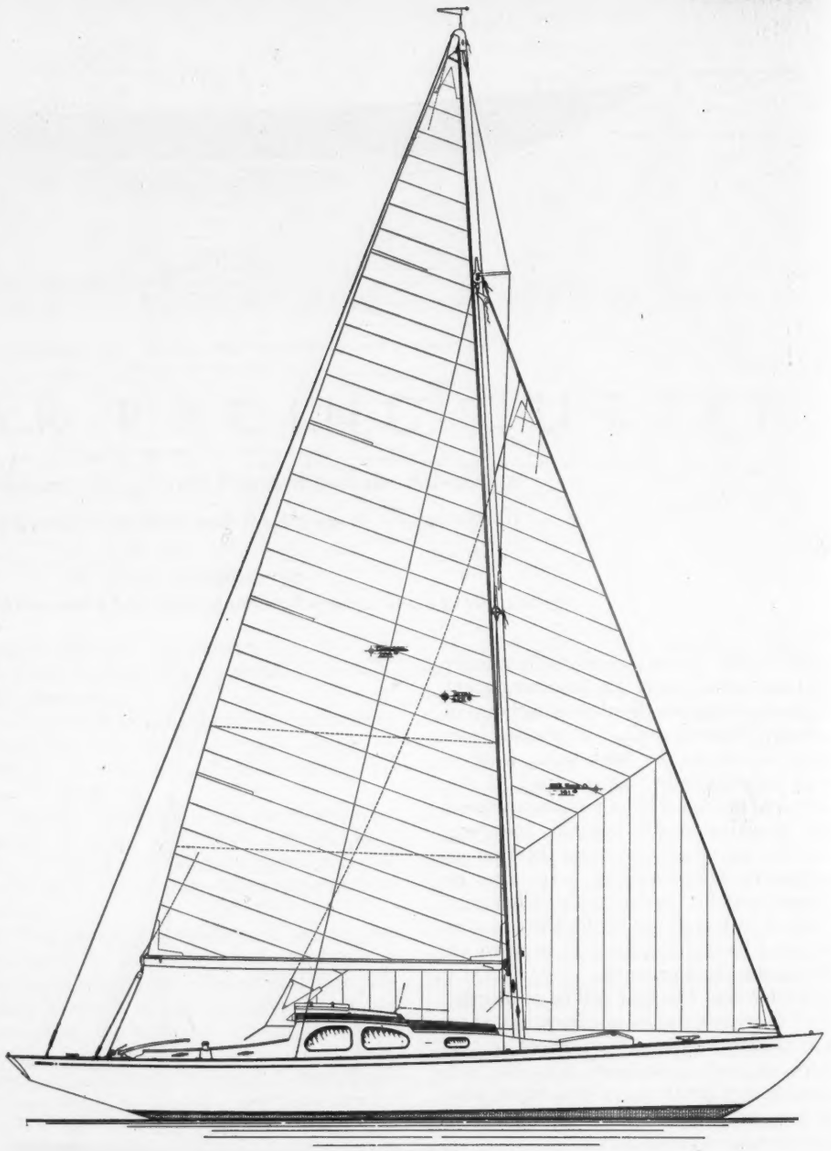
A FAST CRUISER

THIS design, by A. Mason, of New York, features the narrow boat as developed under the International Rule. In fact, she is an enlarged Five-Metre except that the overhangs were decreased sufficiently to keep the over all length less than 35′0″. While her beam is narrow, it is more than that of a "Six," and the draft is on the shoal side. Her principal dimensions are: Length over all, 34′2″; length on the water line, 23′6″; beam, extreme, 7′5″; draft, 4′8½″; least freeboard, 2′5″; displacement, 9100 pounds.

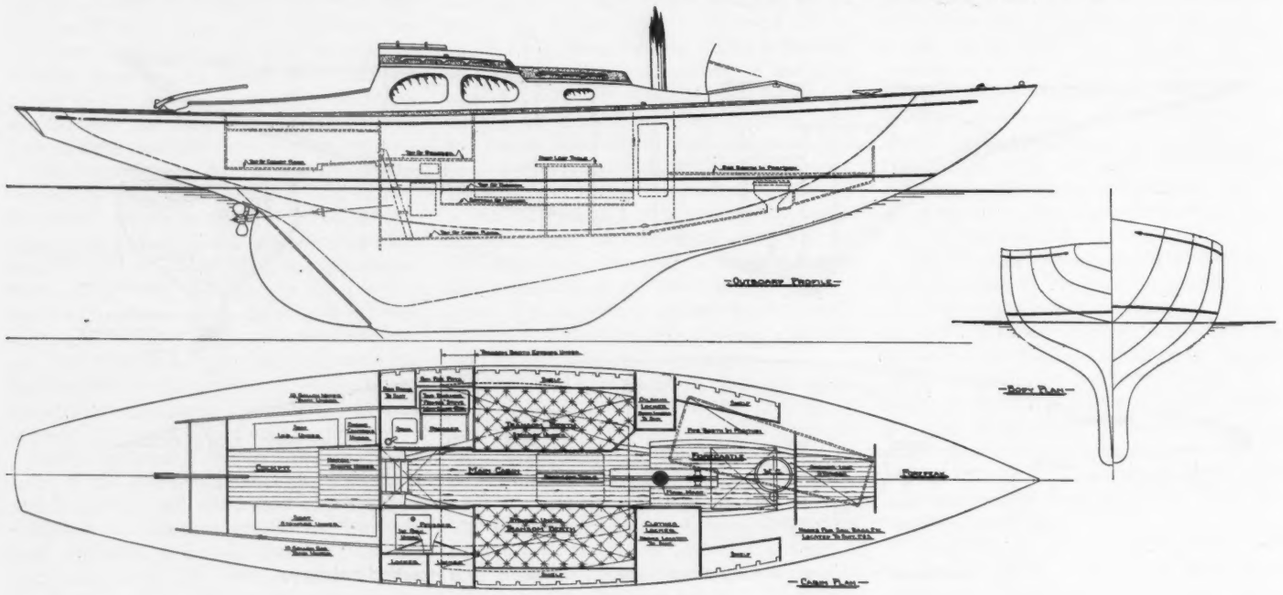
The rig is fairly tall and short on the base, the total area of the working sails being 425 square feet, of which there are 284 in the main and 141 in the overlapping jib. The mast height is not excessive, being but three feet more than that of a number of the popular auxiliaries of her size while the height of the fore triangle above the water line is the same. Spars are hollow and the rigging has been kept to the absolute minimum to reduce windage and weight aloft. While runners are shown, they are required principally when carrying the Genoa to windward in a fresh breeze. To be sure, the mast might have been thickened up to eliminate the runners but at the expense of extra weight aloft, which would have meant a loss in power to carry sail. This point is only too often overlooked in an attempt to produce a rig which will save work by the crew when sailing.

As auxiliary power, a 5 hp. Lauson engine is installed under a large hatch in the cockpit. It drives a two blade feathering propeller off the center line to port. A 14-gallon gasoline tank is under the deck to starboard and a 19-gallon fresh water tank to port.

Since the boat was designed to be a fast sailer and a relatively comfortable week-end cruiser, cabin arrangement was secondary in importance, with all frills eliminated. Lockers and shelves may be desirable, yet too many, according to the designer, lead to carrying unnecessary gear. The cabin is simple and more or less conventional, with galley, two seat berths, and a pipe berth forward with toilet under. Headroom under the doghouse is 5′10″ and is 5′2″ under the cabin house. Altogether, an interesting design.



The sail plan is tall and modern. Below, body plan and accommodation plan. The layout is conventional but practical



The plans reproduced in this section are the property of the designer under whose name they appear. For further information concerning any design address the naval architect in question.

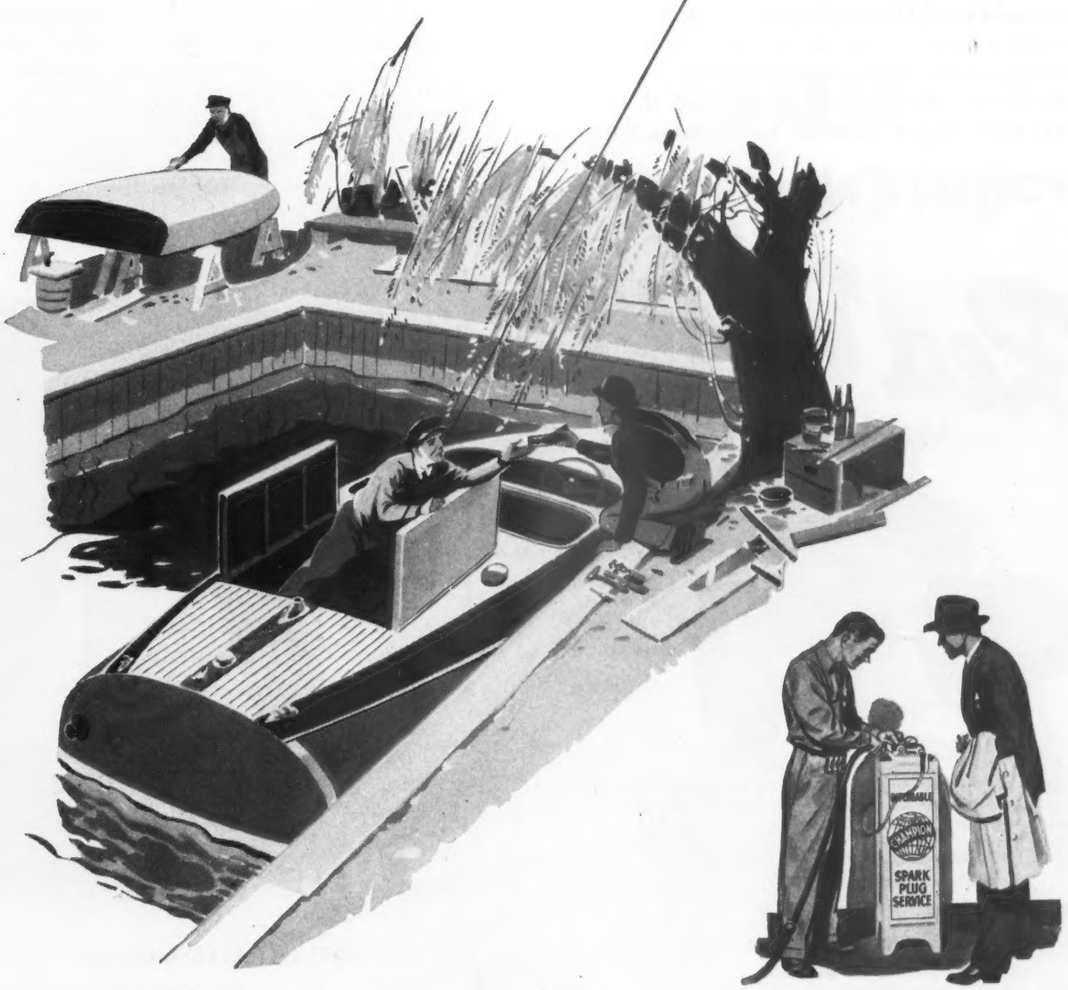
It's time to check your spark plugs!

If you are like most boat owners—that boat of yours is just as much part and parcel of your life as your home, your dog, your favorite gun, or any other truly cherished possession.

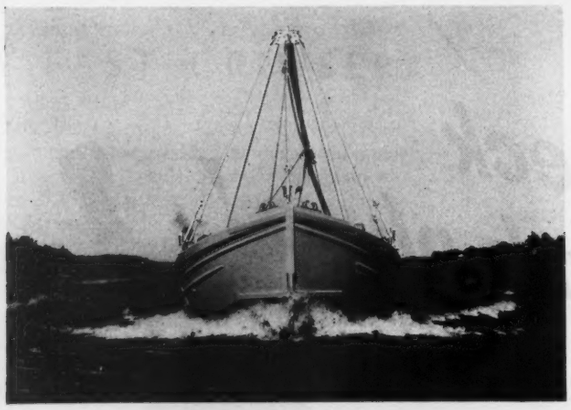
The fact that you may not be able to use it as much as you'd like to—or that you can't buy everything for it that you'd like to, isn't going to diminish your affectionate regard for it one iota. Now is it?

Well sir, then just this gentle reminder —the same old suggestion we make to you every year at fitting out time—take a look at her spark plugs. Have 'em cleaned and checked, or do it yourself. If they're not in tip-top shape this will go a long way towards rejuvenating them. If some of them are broken, worn out, carbon encrusted, and electrodes burned away, remember to specify Champions when you buy new ones.

This simple check up will pay big dividends in economical, dependable engine performance.



TO SAVE GASOLINE • KEEP YOUR SPARK PLUGS CLEAN



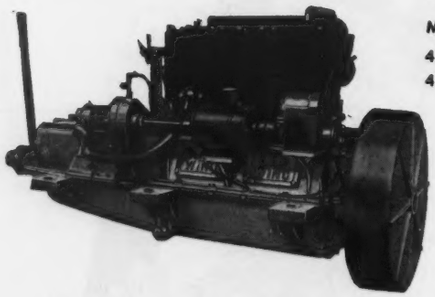
BUILDING Buoy Boats FOR THE NAVY

● THESE ARE THE YARDS that have been building 38-ft. Buoy Boats powered with Model B Red Wing Marine Engines, for the U. S. Navy.

Baltzer-Jonesport Corp., Medford, Mass.
Beetle Boat Co., New Bedford, Mass.
Bruns-Kimball & Co., Patchougue, L. I., N. Y.
Amity Boat Basin, Amityville, N. Y.
Freeport Point Shipyards, Freeport, N. Y.
Great Kills Boat Yard, Great Kills, S. I., N. Y.
Harbour Boat Works, San Diego, Calif.
Mt. Desert Boat Yard, Alexandria Bay, N. Y.
San Pedro Boat & Yacht Co., Los Angeles, Calif.

POWERED BY 32–40 H.P.

Red Wing
MARINE ENGINES



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4-cylinder
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4½" bore
5" stroke
318 cu. in. displ.

It takes *experienced* engine makers to meet the exacting specifications of the Navy. Red Wing not only *knows how*, but has the facilities.

ENGINES AVAILABLE FOR ESSENTIAL USE
20 Gasoline Models.....8 hp. to 125 hp.
Spark Diesel Types.....42 hp. to 200 hp.

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WATERFRONT NEWS

By "BEACHCOMBER"

THE LITTLE SHIPYARD

A FEW weeks ago the editors of YACHTING chanced to see some particularly attractive half models, mounted on decorative plaques, which appeared to them to be the sort of thing that every yachtsman would like to know about.

A letter to the builder of these models brought forth this reply:

"Each model is hand carved of select patternmaker's pine, and whether the model is a dinghy or an ocean racer, the same close attention to all details is maintained. Most of the popular class designs, i.e., Snipe up to Star, are scaled ⅜ inch to the foot and are mounted on a suitable size mahogany Weldwood backboard. After the hulls and sails are carved and sanded, three to four coats of undercoater are applied, each hand rubbed as required. Numerous coats of lacquer or enamel are then applied, each coat hand rubbed. Color is as per specifications of the purchaser. Racing numerals and insignia are applied to the sails. These parts are securely fastened to the backboard by screws. Spars, tiller and other small details are then added and the whole assembly is packed in a sturdy box and ready for shipment.

"When ordering, it is simply necessary for the purchaser to give colors of bottom, topsides, water line, deck, cabin sides, cabin top, spars and color of and approximate position of insignia and numerals on mainsail. Snapshots or plans are returned with delivery of the plaque. In addition to the color data, the purchaser must advise use if the yacht deviates in any manner from the official class design, such as shape of cockpit, position of sprayboard, etc. These changes are duplicated in the model at no extra cost."

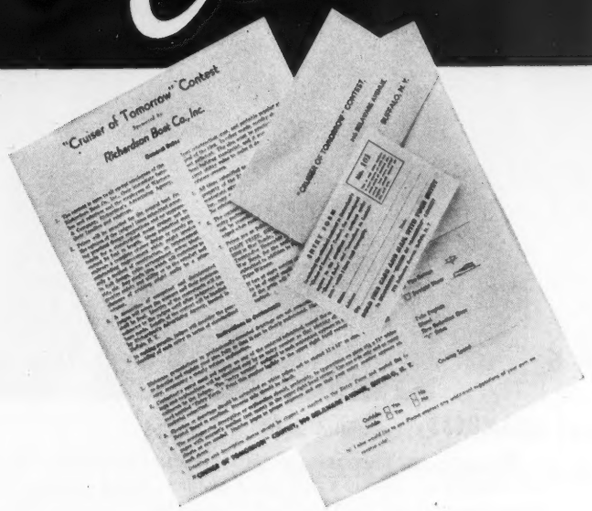
The Little Shipyard's models are surprisingly moderate in price, ranging from $4.50 for a 11" by 14½" Penguin to $17.50 for a 13" by 19½" Atlantic. All models are mounted on a plaque measuring 11½" by 15¾" over all. An etched copper plate, bearing the club burgee, class insignia (in color), name of yacht, owner or other data may be obtained for $1.00 extra. All prices of the models themselves will be given on application.

In New York they are handled by Abercrombie & Fitch, E. J. Willis Co. and Oluf Mikkelesen; elsewhere they may be obtained from the makers, The Little Shipyard, 114-47 147th St., South Ozone Park, Long Island City, N.Y.

12-VOLT PORTABLE ELECTRIC HORN

THIS horn is built of corrosion-resistant materials, heavily chromium plated, and makes a loud and penetrating sound with full carrying quality. It is equipped with a built-in handle with push button, and comes with twelve feet of rubber covered cable. Dimensions are 15" long, 9" high and 6" wide. This model can also be obtained for use on 6- and 32-volt systems. The Sparks-Withington Company, Jackson, Mich.

Have you entered RICHARDSON'S "Cruiser of Tomorrow" CONTEST?



YOUR IDEA MAY WIN A $500 WAR BOND

★ The "Cruiser of Tomorrow" Contest gives you a chance to get your dreams out of drydock, now... while most boating activities are curtailed. Launch that idea that has lain dormant in your mind all these years. Make a rough sketch of it... write up a brief description... maybe it's better than you think. Begin by mailing us the coupon at the bottom of this ad today. We'll send you the complete rules and a contest entry blank. There are plenty of prizes and honorable mentions.

And the rules of this Richardson contest are simple. Any idea or design suggestion which can be incorporated in a standardized cruiser, not exceeding 34 feet in length, is eligible. Complete boat designs are not necessary. Any single idea contributing to greater safety and utility or to the comfort and pleasure of cruising, may be a prize winner. The idea is the thing!

Right now, Richardson's full energies are devoted to the war effort. Competent, disinterested parties will supervise this contest. Judges will be announced in this magazine next month. Mail coupon today to Richardson "Cruiser of Tomorrow" Contest, 296 Delaware Avenue, Buffalo, N. Y.

CONTEST OPEN TO ALL!*
Amateur and Professional Alike!

1st PRIZE $500 WAR BOND
2nd Prize $300 War Bond
3rd Prize $100 War Bond
In case of a tie, duplicate prizes will be awarded

25 Honorable Mention prizes of a $25 War Bond, for the next best 25 ideas.

CLOSES MIDNIGHT JUNE 30th, 1943.

* Except Richardson's employees and adv. agency.

RICHARDSON
CRUISERS for Peace time
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MAIL COUPON FOR ENTRY BLANK

Richardson "Cruiser of Tomorrow" Contest
296 Delaware Ave., Buffalo, N. Y.
Please send Contest Entry Blank.

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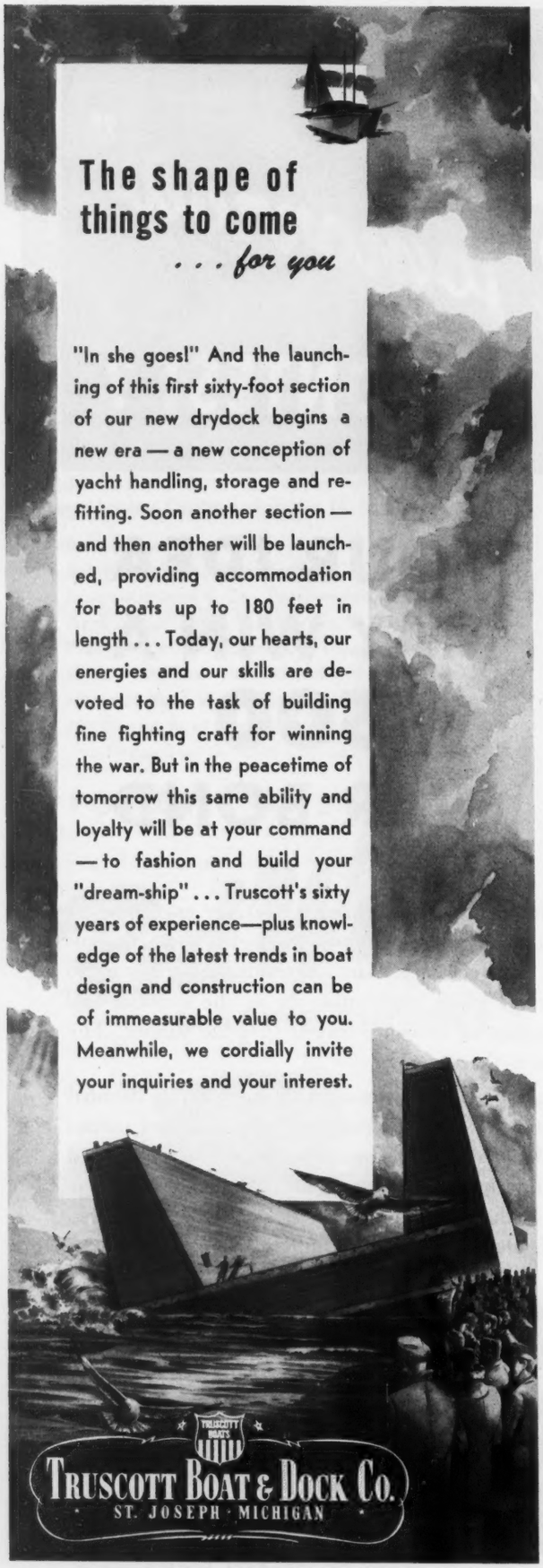
The shape of things to come
. . . for you
"In she goes!" And the launching of this first sixty-foot section of our new drydock begins a new era — a new conception of yacht handling, storage and refitting. Soon another section — and then another will be launched, providing accommodation for boats up to 180 feet in length . . . Today, our hearts, our energies and our skills are devoted to the task of building fine fighting craft for winning the war. But in the peacetime of tomorrow this same ability and loyalty will be at your command — to fashion and build your "dream-ship" . . . Truscott's sixty years of experience—plus knowledge of the latest trends in boat design and construction can be of immeasurable value to you. Meanwhile, we cordially invite your inquiries and your interest.
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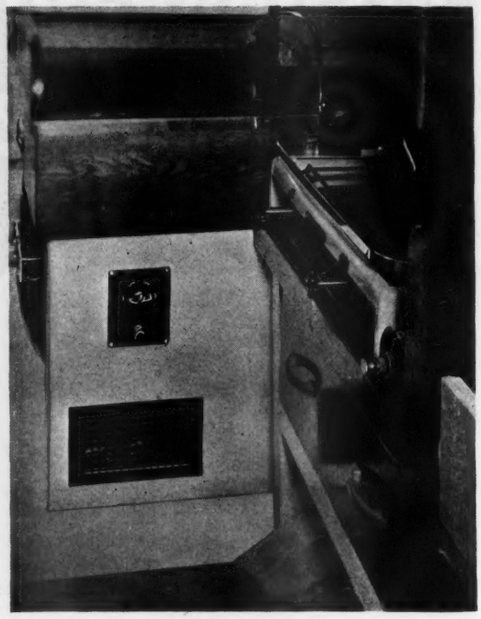
HERMETIC COMBUSTION HEATERS

THIS past winter has proven that one of the most important problems which arise in connection with the operation of auxiliary and motor vessels during winter is that of heat. For, with greater demands upon speed, lightness and range of operation, the need for small, compact and efficient heating plants becomes of paramount importance.

Stewart-Warner are now manufacturing a new series of hermetic combustion heaters (Series 782 and 792) under the trade name of "South Wind." These gasoline-burning heaters are characterized by the fact that all combustion, flue and exhaust passages are hermetically sealed. From the standpoint of performance and safety, this method of operation is of extreme practical importance. Stewart-Warner Corporation, 1828 Diversey Parkway, Chicago, Ill.



FOAMGLAS

OUT of every war come new processes and new products. One of the most interesting of these is a new kind of glass called Foamglas. Foamglas is a true glass and yet, on its surface, it looks like a sponge. From its appearance it would seem to be porous — actually, it is simply a glass which has been cellulated by the formation of internal gas at high temperature.

Foamglas is particularly interesting to the marine field, because of the possibilities it offers when used for buoys, floating docks, mooring buoys, fish net floats, life rafts and other similar equipment. Having a raw weight of 10 to 11 pounds per cubic foot, which means a net buoyancy of 50 pounds per cubic foot in finished form, Foamglas compares favorably with kapok, cork, balsa wood and cellular rubber. After complete immersion in water for twenty-four hours, Foamglas shows an increase of only 2 per cent in weight, resulting from surface pick-up. It is completely impervious to water and thus it will always maintain its original characteristics as to buoyancy. In addition, the fact that Foamglas is readily available as opposed to the extreme difficulty encountered in securing the other mentioned materials, makes it particularly attractive at this time.

Since kapok, cork, cellular rubber, and balsa will become even more difficult to secure, it is likely that this new glass will solve the problems of those who are unable to obtain their usual flotation materials. Pittsburgh Corning corporation, Grant Building, Pittsburgh, Pa.

Photo courtesy
The Military Engineer

Lifeline to Alaska

1600 miles across rivers and through forests . . . over mountains and muskeg . . . in 9 months U. S. Engineers create the Alcan Highway . . . and Evinrudes were on the job!

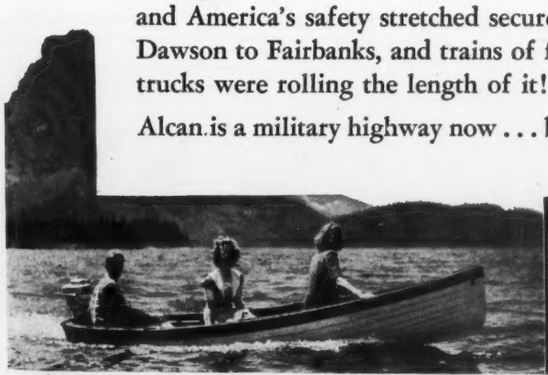
"Impossible . . . fantastic . . . monstrous," said the critics. Towering mountain ranges, vast wilderness, great rivers, every obstacle known to road builders blocked the way. A fraction of the project could easily take years to complete.

In March the Corps of Engineers swung into action. Miracles were demanded — and accomplished. The world knows only the results. In December the Alcan Highway was through! The lifeline for Alaska's defense and America's safety stretched securely from Dawson to Fairbanks, and trains of freighter trucks were rolling the length of it!

Alcan is a military highway now . . . but some peaceful summer to come you may decide to try your fishing luck in sporty lakes and rivers up near the Arctic Circle! Swiftly covering these spectacular miles you'll gain fresh appreciation of the greatest road building accomplishment in history!

We're proud that Evinrudes served on *that* job . . . and equally proud of the Evinrudes that are faithfully performing many another war time task for the army, navy and marines. Until Victory, Evinrudes are being built only for the armed services . . . then there will be brilliant new Evinrudes for peacetime pleasures again!

EVINRUDE MOTORS, ***Milwaukee, Wisconsin***
Evinrude Motors of Canada, Peterboro, Canada



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ITEM	Brass	Bronze	Copper	Everdur	Monel	Stainless
Cap & Mach. Screws:						
Hexagon head	STOCK	To Order	To Order	To Order	To Order	To Order
Flat head	STOCK	To Order	To Order	STOCK	STOCK	STOCK
Round head	STOCK	To Order	To Order	STOCK	STOCK	STOCK
Fillister head	STOCK	To Order	To Order	STOCK	STOCK	STOCK
Special	To Order	To Order	To Order	To Order	To Order	To Order
Bolts:						
Machine	To Order	STOCK	To Order	STOCK	STOCK	STOCK
Carriage	STOCK	STOCK	To Order	STOCK	STOCK	STOCK
Flat head	To Order	STOCK		To Order	To Order	To Order
Round head	To Order	To Order		To Order	To Order	To Order
Oval head	To Order	To Order			To Order	To Order
Hangar	To Order	STOCK		STOCK	To Order	To Order
Stove	STOCK	To Order	To Order		To Order	To Order
Special	To Order	To Order	To Order	To Order	To Order	To Order
Screws:						
Thumb	STOCK					
Lag	STOCK	STOCK	To Order	STOCK	STOCK	STOCK
Wood	STOCK	To Order		STOCK	STOCK	STOCK
Set	STOCK	To Order		STOCK	STOCK	STOCK
Knurled	STOCK					
Special	To Order	To Order	To Order	To Order	To Order	To Order
Studs	STOCK	To Order	To Order	To Order	To Order	To Order
Threaded Rod	STOCK	To Order	To Order	To Order	To Order	To Order
Nuts:						
Knurled	STOCK					
Heavy American Standard	STOCK	STOCK	To Order	STOCK	STOCK	STOCK
Light American Standard	STOCK	To Order		STOCK	STOCK	STOCK
Regular American Standard	STOCK	STOCK		STOCK	STOCK	STOCK
Machine screw	STOCK			STOCK	STOCK	STOCK
Castellated	STOCK	To Order	To Order	To Order	STOCK	STOCK
Wing	STOCK			STOCK	STOCK	
Special	To Order	To Order	To Order	To Order	To Order	To Order
Cap	STOCK	To Order	To Order	To Order	STOCK	STOCK
Washers:						
Regular	STOCK	To Order	STOCK	STOCK	STOCK	STOCK
Lock				STOCK	STOCK	STOCK
Special	To Order	To Order	To Order	To Order	To Order	To Order
Cotter Pins	STOCK			To Order	STOCK	STOCK
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HARPER *Chicago*
EVERLASTING FASTENINGS

NEWS

U.S. COAST GUARD AUXILIARY

▶ The man lay on the deck of a tug under way and well at sea. The angry red of his face and the fact that he had been found unconscious in the engine room made it plain that he was a victim of carbon monoxide poisoning. His alert officers signalled a patrol plane which, in turn, brought a swift Coast Guard boat to the tug's side. He was transferred to the Coast Guard boat, which started the long haul toward land. Her radio sent out a new call for help, however, and, before she reached shore, the Auxiliary's "Ambulance Boat" took the stricken seaman on board, where its inhalator saved his life. . . .

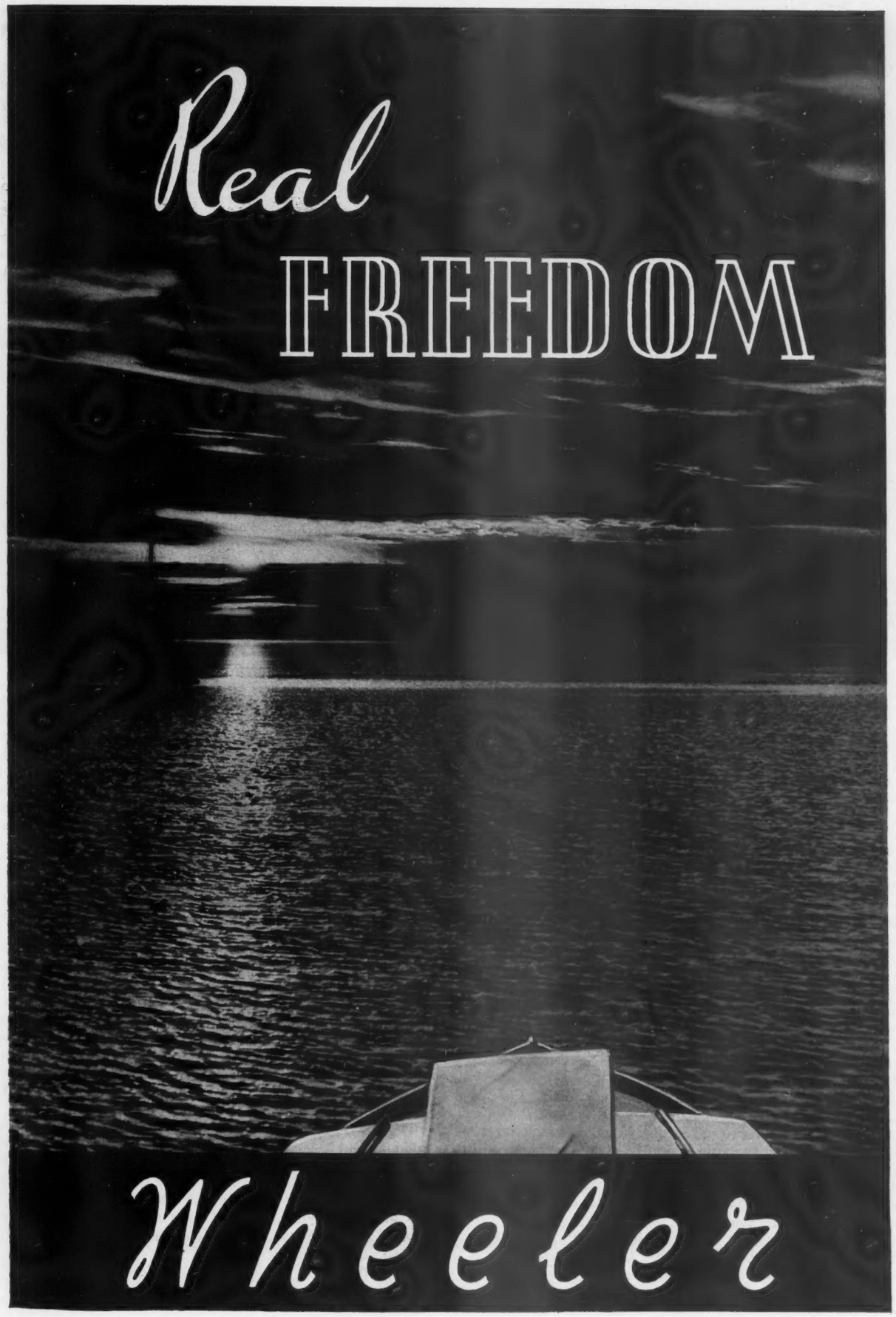
Moving from island to island, in that vast portion of the Seventh Naval District where there is no mainland at all, the same boat "typed" the blood of all volunteers, free of charge. Come air raid, enemy shells, or even a hurricane, the record of blood types in this region would be ready for the inevitable emergencies. Auxiliary members brought another rush call to this boat while she was engaged in that helpful routine: on one of the islands a civilian had been stricken with a severe internal hemorrhage. The Auxiliary's new ambulance boat pulled up her hook and sped to the scene of the crisis. Because all the people on that island had been "typed" and catalogued, it was possible to give the first transfusion to the victim in double-time. His life, too, was spared. Foresight, quick action, and the proper equipment had saved a human being again.

The new Director of the Auxiliary in the Seventh District is John V. D'Albora, USCGR (T), who succeeds Carrington Gramling, USCGR. "The 'ambulance boat' has already paid big dividends for victory," he says. "Not really an ambulance at all, but a seagoing operating room, with supplies and stores for all kinds of emergencies and a well-equipped operating room, it takes the hospital out on salt water, and in a hurry, under circumstances where time is often the one, vital factor. Our ship is the fruit of the effort of Dr. M. H. Tallman, Miami physician and surgeon, an Auxiliary member with the rating of Chief Pharmacist's Mate. A skillful surgeon, he keeps a standby crew for the boat, with a doctor always on call, also a laboratory technician and two nurses. It is our purpose to arrange to have such seagoing operating rooms stationed at 40- to 60-mile intervals all along the coast. We will welcome requests for information on equipment, supplies, procedure and so on."

Clarence B. Johnson, CBM, has been assigned by Lieutenant D'Albora to the post of educational assistant. The Seventh Naval District was always a labyrinth of seaways, filled with boats of every type. Many of the peacetime skippers have been astonished to find, upon signing with the Auxiliary, that their nautical knowledge had numerous flaws. These are being remedied by a training program of the most intensive and varied sort and handsome certificates of proficiency are being awarded to Auxiliary members passing the rigid examinations. In much of the Seventh Naval District, there is more coast, seemingly, than open sea or mainland; the members of the numerous flotillas are training hard to carry the resultant responsibilities efficiently.

▶ "Get on that swab, sailor . . . soogee those bulkheads. . . ." Lawyers, businessmen, clergymen and physicians are learning to jump

The Auxiliary ambulance boat of the Seventh Naval District is a seagoing "operating room," and is prepared for every emergency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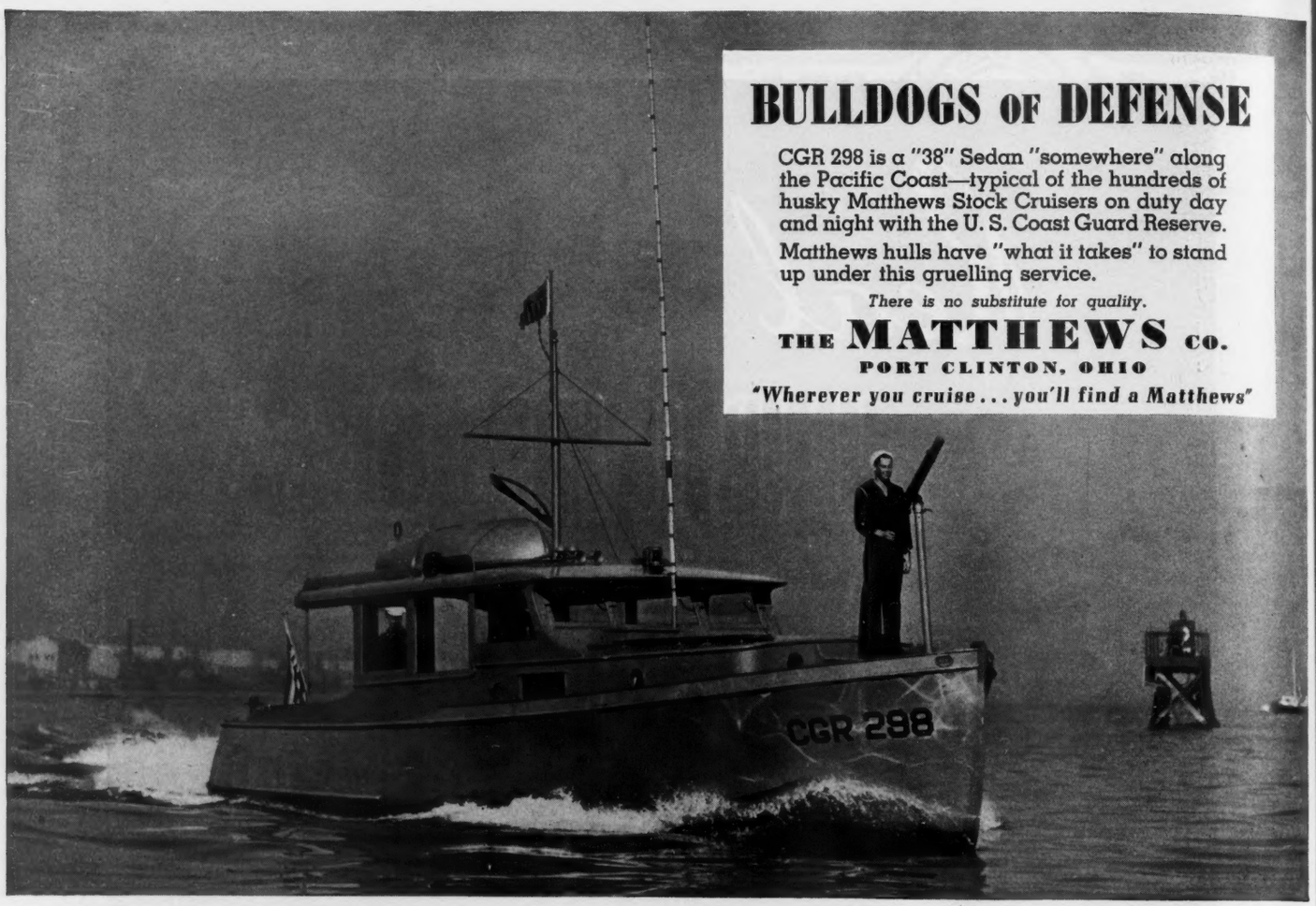

BULLDOGS OF DEFENSE
CGR 298 is a "38" Sedan "somewhere" along the Pacific Coast—typical of the hundreds of husky Matthews Stock Cruisers on duty day and night with the U. S. Coast Guard Reserve.
Matthews hulls have "what it takes" to stand up under this gruelling service.
There is no substitute for quality.
THE MATTHEWS CO.
PORT CLINTON, OHIO
"Wherever you cruise... you'll find a Matthews"
CGR 298

quickly when they hear these commands. This somewhat incongruous picture of gentlemen with scrub buckets may at first glance seem a bit burlesque, but the United States Coast Guard Reserve of the St. Louis Ninth Naval District holds it in serious regard.

Tailored suits and spotless operating gowns are put aside for dungarees and galley aprons when men of the Coast Guard Temporary Reserve and Auxiliary step out of business and professional life into training aboard *CGR-2343*. *CGR-2343*, a 53-foot Elco cruiser, was lent to the Coast Guard Reserve for the duration by her owner, Carlos Alling, of Chicago. Manned by four hand-picked Coast Guard Reservists — all former members of the Coast Guard Auxiliary — *CGR-2343* recently began a training cruise of the St. Louis District's river ports.

In every port of call, Temporary Reservists are ordered to take 48 hours of compulsory training aboard ship. Auxiliary members are invited to take advantage of the same training course. The "boots" go aboard in groups of four. From the moment they report aboard until they are dismissed 48 hours later, every trainee (civilian, seaman and gold braid wearer) is regarded as an ordinary member of the crew under full and complete authority of Boatswain's Mate James H. Robinson, Jr.

The plan behind this training odyssey was born in the minds of Captain Stephen S. Yeandle, District Coast Guard Officer, and Lieutenant Commander O. C. B. Wev, Director of the Coast Guard Reserve and Auxiliary in the St. Louis Ninth Naval District.

"The purpose of the *CGR-2343*'s cruise is twofold," Commander Wev points out. "First, to knit more firmly together the work of the Coast Guard Reserve, Temporary Reserve and Auxiliary; and second, to prepare a strong, well-instructed security patrol force." Captain Yeandle recently explained the importance of the plan when he said, "This force, made up almost entirely of men past military age or exempt through dependency or occupational deferment, will gradually permit the release of fighting Coast Guardsmen for duty in the theaters of war."

Under the tutorship of Boatswain's Mate Robinson, Jim L. Hurt, Motor Machinist's Mate, 2nd class, Clarence T. Boyd, Coxswain, and Frank A. Lahke, Coxswain, the "boots" follow a strict routine. At 6 o'clock in the morning, the man on watch calls all hands. General morning duties are taken in hand, bunks are made, toilets cleaned, cabins swept while the cook and mess attendants of the day prepare breakfast. After breakfast, the galley is cleaned, the Machinist starts the motors and checks all mechanical parts and bilges while the deck hands sweep down and swab the deck.

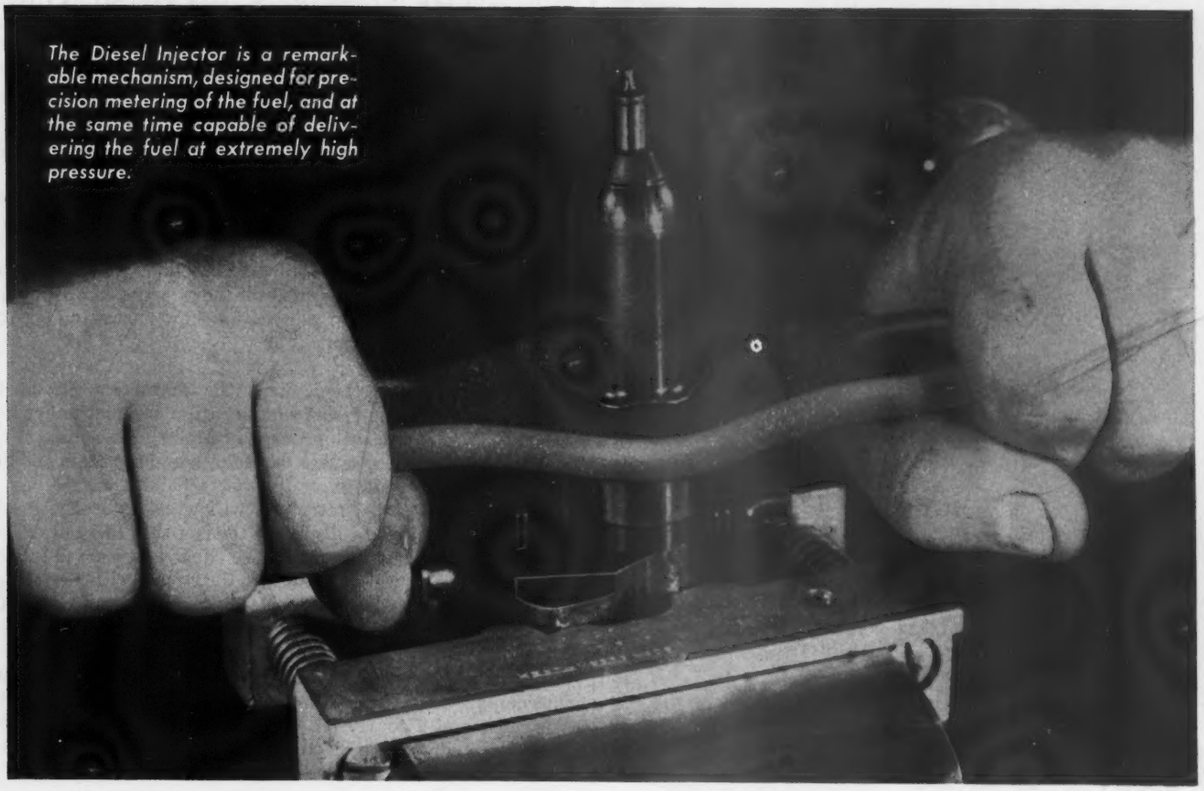
Morning colors at 0800 are followed by boat and crew inspection. The officer in charge announces the day's program of training and "laboratory" work begins immediately. Students practice signaling, stopping and boarding a suspicious vessel, learn how to pull an oar, practice the dignities of military etiquette and puzzle over innumerable forms which they must know. At 1130 the order "knock off for dinner" is given and at 1200 "chow down" is called. After dinner, all hands return to their studies again, practicing fire prevention, marlinspike seamanship, marine mechanics and artificial respiration. At 1600 all hands "secure from work" and at 1700 have their supper. Evening colors at sunset mark the end of the day's training and most "boots" are ready to "hit the sack" after such a day.

▶ Baltimore's first patrol boat to be manned entirely by members of the Coast Guard Auxiliary was officially turned over to Commander Carl H. Abel, Captain of the Port, by Flotilla No. 31 on February 20th at the Sue's Island headquarters of the unit. Designated as the *05013*, the vessel is a 55-foot cruiser completely outfitted for winter work. She was formerly owned by William J. Cleaver, of Baltimore, and has been turned over to the Government for the duration of the war and for six months thereafter.

With the establishment of this new patrol, Baltimore now has two Coast Guard Auxiliary craft on continuous 24-hour duty manned by auxiliary crews alone. The other vessel, a guard boat, has been maintaining a position off Fort Carroll in Baltimore Harbor since early last July. Members of the Baltimore Division, Flotillas Nos. 7, 15, and 20, each contribute personnel for the manning of the guard boat.

Organized March 25, 1942, Flotilla No. 31 now has 107 active members and a fleet of 52 boats and, in an emergency, can muster 48 more boats in two hours. Composed of men who have had active experience, the auxiliary flotilla has held maneuvers during the first year of operation which included the recovery of bodies from the water, resuscitation, first aid, fire fighting and carrying out sealed order maneuvers. During 1942, over fifty cases of assistance were rendered, one person was saved from drowning and two bodies were recovered.

Every member of Flotilla No. 31 is fully uniformed and has been drilled and instructed during the winter in Coast Guard method and procedure. Classes have been held in semaphore, blinker signaling, boat handling, seamanship and allied subjects, and instruction in the use and handling of various types of small arms and machine guns has been part of the required training for each member.



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Young hands . . . strong hands . . . capable hands. More and more of them are becoming skilled hands, learning the *feel* of tools and the joy of accomplishment.

The earnest young men who are studying Gray Marine Engines in the Training Schools come from farms and stores and garages all over America. Their magnificent accomplishments in landing American troops on foreign soil speak well for their highly specialized Navy training with boats and engines.

And in cities across America are thousands of Boat Owners, nearing or beyond the military age limit, who are earnestly attending engine classes conducted by the U. S. Coast Guard Reserve and U. S. Power Squadrons. They will be ready if the country needs them.

Gray has been in the thick of these developments. The eagerness and enthusiasm of these men has been a constant source of stimulation and satisfaction. Gray Marine Engines are in good hands.

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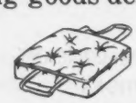
And that's the spirit of American sportsmen in foregoing their favorite Ta-pat-co Life-save equipment for our Soldiers, Sailors and Marines. Ta-pat-co factory materials and facilities are being devoted exclusively to war needs. But after Victory is won, we will again look forward to supplying Ta-pat-co Life-save and sports equipment to you through your favorite marine and sporting goods dealers.

1—SM—1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What Our Readers Say

THE "GEORGE WASHINGTON" SAILS AGAIN

Editor, YACHTING:

▶ I have just finished reading the very interesting article on the old S.S. *George Washington* and thought you might be interested in the next episode of her history.

As you reported, she was turned over to the British to be used as a transport. All went according to plan and the British crew worked for nine months to make her ready for sea. Eventually the job was finished, the ship provisioned, the troops stowed away like sardines and the lines cast off. But the task proved too great for the crew or perhaps the ship because, only a few days out of port, she was forced to return and eventually ended up at Pier 7, Staten Island.

▶ Without going into the details of the transaction, she was turned over to the Maritime Commission who in turn placed her under the operation of the Waterman Steamship Corp., of Mobile, Alabama. On the first day of April, 1942, the Union Jack came down and the Stars and Stripes again flew from the jackstaff.

From all over the country and with great difficulty, a crew was assembled. The main difficulty lay in the fact that coal-burning firemen and coal passers are hard to get when the Great Lakes are in full swing. However, late in April, we stood out into the stream with a semi-skeleton crew headed by Commander Charles Batchelder and Staff Captain Ben (Let's log 'em) Martin.

▶ Where we went and what happened I can't say except that, all things considered, the old gal did well enough to warrant a complete boiler replacement and a conversion to oil upon our return late in June. And it is possible that one of the troopships that landed that vast number of troops in Africa recently was the *George Washington*.

Thus once again she sails under the flag her name fits her to, and makes the country that built her sorry for doing so.

JOHN F. HULING
Formerly Chief Deck Storekeeper
S.S. "George Washington"
Chicago, Illinois

QUITE A FIX

Editor, YACHTING:

▶ Some years ago George Adams, navigating *Chiva*, made a running fix by drawing circles of equal altitude of the sun, which is recorded for posterity in Mixter's "Primer of Navigation." I have long admired that job and aspired to do likewise, but should probably never have had the chance except for the evil machinations of the man Schickelgruber. As things turned out, I claim to have out-Adamsed Adams by getting a positive fix at noon from a series of sights of the sun alone. It may be of interest, although hardly descriptive, to add that the sights were taken on board the U.S.S. ——, bound from —— to ——.

Like most sights, a good deal of the work can be done in advance. In fact, you must calculate in advance the approximate watch time of local apparent noon. If you want to do this by Todd's method, why God bless you; however, it is a damned sight easier merely to carry forward your dead reckoning to noon, and apply a longitude correction and the equation of time to twelve hours. The sight will work out just as well if your D.R. position is within, say, 20 miles of your actual position. Draw the parallel of latitude equal to the sun's declination, and on it plot the sun's geographic position at L.A.N., the longitude, of course, being that of the D.R. position. Since the sun moves fifteen minutes of arc in each minute of time, its position for each of the two or three minutes before and after L.A.N. can be plotted by laying off fifteen minutes of longitude to the east for each minute before noon, and to the west for each minute after noon.

▶ The only difficulty comes in bringing the sun down to the horizon, or rather in being sure that you have it at the right part of the horizon at the exact second you have selected. The trick about this is to calculate the approximate altitude and azimuth in advance by measuring from your noon dead reckoning position to each position of the sun, and applying the net sextant correction, and to take the sights over the compass so that you are sighting in approximately the right direction. It is much easier than it sounds, but you have to be a little nippy with the sextant and have a good quartermaster calling off the times for you. A lot of thinking is saved, as usual, if you have a comparing watch set to zone time.

The corrected altitudes are subtracted from 90°, and circles described with the differences as radii and the sun's respective positions as centers. Unless the ship is moving fast, it is not necessary to adjust the sun's G.P. for the distance run between sights. The intersection of all the circles gives you a pretty good fix. I could have easily fudged the figures so that the curves would all have crossed at exactly the same point, but nobody would have believed me. As a matter of fact, the second one wasn't too bad, if I do say so.

▶ Of course, the method is workable only when the sun's declination is within two or three degrees of your latitude.

September 17, 1942, noon D.R. position, Lat., 02° 00′ N, Lo., 45° 35′ W; declination, 02° 21′ N; equation of time, —05m 20s; net sextant correction +12′; observed sun's lower limb as indicated below.

						12:00:00
Correction for D.R. Lo. (35′ W of standard meridian)						+ 02:20
Equation of time (at 1457 G.C.T.)						− 05:20
Watch time of L.A.N.						11:57:00
WT	11:54:00	11:55:00	11:56:00	11:57:00	11:58:00	11:59:00
H_s	89°:02′	89°:14′	89°:26′	89°:32′	89°:26′	89°:12′
Correction	+ 12′	+ 12′	+ 12′	+ 12′	+ 12′	+ 12′
H_o (subtract from 90°)	−89°:14′	−89°:26′	−89°:38′	−89°:44′	−89°:38′	−89°:24′
	89°:60′	89°:60′	89°:60′	89°:60′	89°:60′	89°:60′
Radius	46′	34′	22′	16′	22′	36′

September 18, 1942, noon D.R. position, Lat., 00° 52′ N, Lo., 43° 26′ W; declination, 01° 59′ N; equation of time, −05m 34s; net sextant correction +12′; observed sun's lower limb as indicated below.

						12:00:00
Correction for D.R. Lo. (1° 34′ E of standard meridian)						− 06:16
Equation of time (at 1448 G.C.T.)						− 05:34
Watch time of L.A.N.						11:48:10
WT		11:44:10	11:46:10	11:48:10	11:50:10	11:52:10
H_s		88°:09′	88°:26′	88°:34′	88°:30′	88°:16′
Correction		+ 12′	+ 12′	+ 12′	+ 12′	+ 12′
H_o		−88°:21′	−88°:38′	−88°:46′	−88°:42′	−88°:28′
		89°:60′	89°:60′	89°:60′	89°:60′	89°:60′
Radius		1°:39′	1°:22′	1°:14′	1°:18′	1°:32′

LT. A. G. COOKE, USNR

Norfolk, Virginia

THE CHICAGO—MACKINAC RACE

Editor, YACHTING:

▶A friend has called my attention to the account of the Chicago-Mackinac Race won by *White Cloud* in 38:14:5 elapsed time, which was stated to be the second best time ever made in the Chicago-Mackinac Race.

The second best time was made by *Valmore* in 1910, elapsed time 31:24:06. *Amorita* beat this in 1911 in 31:14:30. I was in the *Valmore* in 1910–1911 and know the times, but those given for this race and the others mentioned are the official times from Donald Prather's book "There Will Always Be a Mackinac Race," published in 1925.

In contrast to the above records, I was in the *Mistral* in 1905 when she won in 94:10:00, bucking two days of northerly gales. Nine boats had entered but only five finished.

Boats that have qualified in the 38 hour class or better in these races up to 1924, after which I have no records, are the following:

	Hours	*Minutes*	*Seconds*
1904 — *Vencedor*	37	46	00
Vanenna	37	50	42
1910 — *Valmore*	31	24	6
Amorita	32	11	10
Vencedor	33	16	45
Hawthorne	35	32	30
1911 — *Amorita*	31	14	30
Shark	34	19	14
Mavourneen	37	57	00
Valmore	38	4	58

1911 was the hurricane year. *Mavourneen* (45′ over all) won it on corrected time but, with two anchors out, was driven ashore in Mackinac Island Harbor.

I would appreciate it if you would correct the *White Cloud* status and the record of the Mackinac races as stated by your correspondent.

MORRILL DUNN

Chicago, Ill.

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1. Completely automatic . . . no switches to operate or mechanical parts to get out of order. Lights the instant it hits the water.
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3. Absolutely safe . . . will not explode because no gases are created; will not set fire to floating oil or gasoline.
4. Equipped with metal ring for attaching to buoy, raft, float, etc.
5. Flashlight batteries for replacement are standard . . . obtainable from any dealer.
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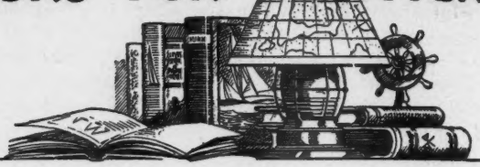


AMERICAN SHIP MODELS

By V. R. Grimwood

(W. W. Norton & Company, Inc., New York, $6.00)

▶ Too many books on model building are, apparently, written for the skilled worker and project the reader into the intricacies of a clipper ship or old time frigate, with the thousand and one details of their complicated rigging. Mr. Grimwood, on the contrary, starts the beginner with a model of a Chesapeake Bay skipjack, with her simple form and plain rig. Indeed, the tyro may begin with a half model mounted on a board, destitute of spars and rigging

From that simple beginning, the author leads the reader on by short stages to the more ambitious vessels, through the scow schooner and the anchor hoy to full rigged merchantmen, privateers and men of war. He gives interesting drawings of spars and blocks, of rigging details and deck furniture, guns and their carriages, and a design for a sailing model of the 50-800 International M Class. A 14-page glossary will be found useful by the non-technical reader.

In the foreword, H. I. Chapelle praises the author's attention to "local types," saying: "The wide variations in shape and appearance of local types of sailing craft offer a great relief from the dreary *Constitution* and *Flying Cloud* models so commonly attempted by beginners whose skill is not great enough for the undertaking. . . . The very sound plan of this book — working from relatively simple models to complicated square-riggers — is emphasized by the fact that the author had no need to make any sacrifice in accuracy of detail in the simple models to obtain ease in building, yet achieved his aim by a suitable selection of model types."

C. H. H.

THE BOATMAN'S MANUAL

By Carl D. Lane

(W. W. Norton & Company, New York, $3.50)

▶ Many are the yachtsmen who have often wished that some meticulous and patient editor would boil up *The Bluejacket's Manual, The American Merchant Seaman's Manual, The Sea Scout Manual* and a half a dozen other manuals of boat operation in one pot, strain carefully for duplication, season with new drawings and diagrams, and serve up the result at a moderate price. Carl Lane has done this, and it's a safe guess that the result will be well received by all hands.

It covers literally everything, by text as well as diagram (the index alone is seven pages in length!). Handy in size and flexible in binding, it will be found convenient for service either ashore or afloat. C. R.

MANUAL OF SHIP CONSTRUCTION

By George C. Manning

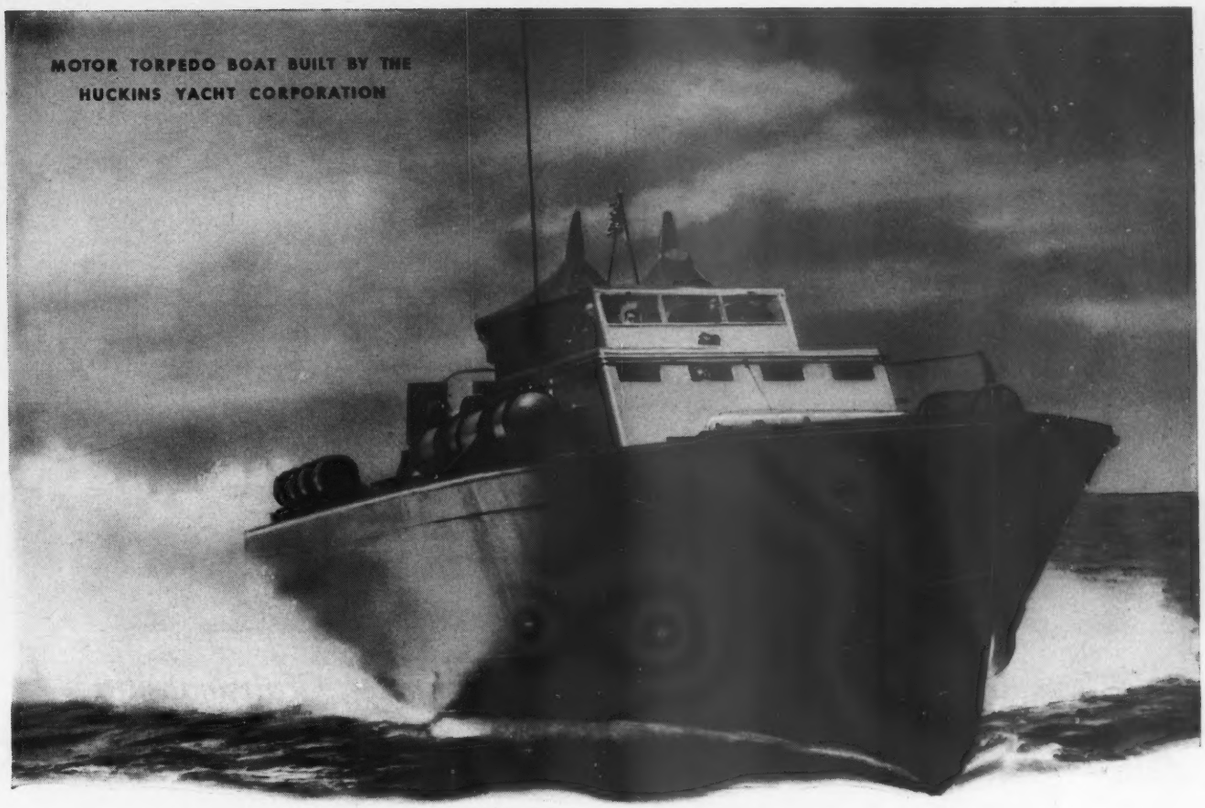
(D. Van Nostrand Company, Inc., New York, $2.75)

▶ Written at the suggestion of the U.S. Maritime Commission for the instruction of cadets, the author hopes that it will help the serious student improve his efficiency as a member of the operating personnel of the merchant marine.

After a short chapter on ship language, it describes ship structure, hull equipment and systems, and goes on to calculations of buoyancy and tonnage. The author then discusses the principles of stability, both in intact and in damaged condition; steering and rudders; ocean waves and rolling; propulsion and resistance. The appendix contains a complete glossary of nomenclature of ships.

There are many line drawings of details, ship's lines, etc., and a number of half-tone illustrations of various types of merchant ships, both completed and in process of construction, and of their gear.

C. H. H.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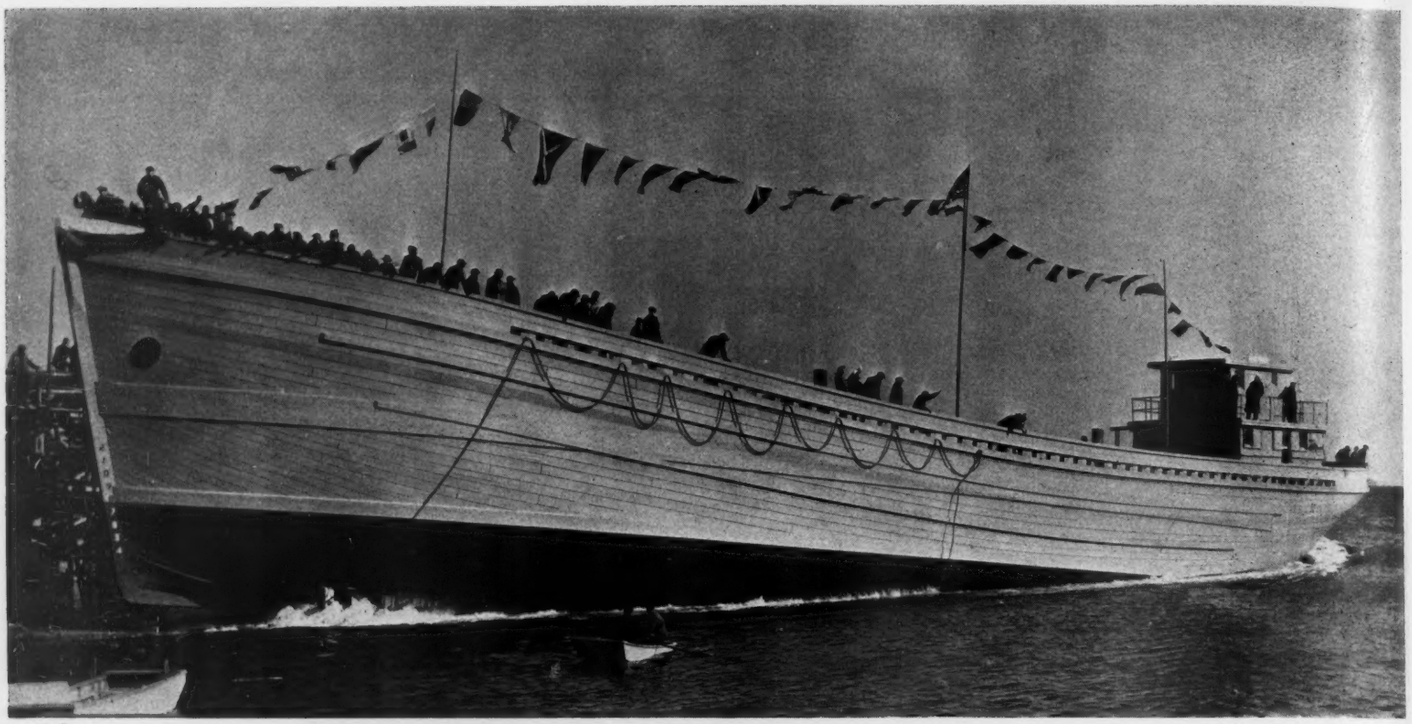

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CAMDEN SHIPBUILDING & MARINE RAILWAY CO.

CAMDEN, MAINE

SPRINGTIME TUNE-UP

(Continued from page 26)

On dual ignition types, you will have to synchronize both sets of points to open exactly together. (See your engine manual for synchronizing instructions.) This is really quite simple and may be done by several different methods: (1) Strips of paper or cellophane as feelers; (2) A pair of indicator lamps, one in series with each set of points. With paper or cellophane strips, have someone pull them gently as you start to rotate the shaft to see which set of points opens first; synchronize until both feeler strips pull out together.

A pair of test lamps can be used in place of feeler gauges. You can make these lamps by hooking up a bulb in series with flashlight batteries, with leads connected to each side of the pair of breaker points. In this way the lamp will be "on" when points are closed and "off" the instant they open. The whole idea with one of these lamps across each pair of points is to have them synchronized so they both go off together as you rotate the shaft slowly.

Oil and grease the distributor as required. Also, spread a thin film of high temperature grease over the cam and don't overlook oiling the felt pad in the center of the shaft.

When putting the distributor back on the engine, use your marks to line it up in its correct position. Next, inspect the cap for cracks and signs of burning and replace if necessary. This is a good time to look over the entire primary or low tension circuit carefully. Examine the connections for broken strands, also for chafed insulation, etc. Should you replace any of these wires, always solder a good terminal to each end, for nothing can be more of a nuisance than loose strands tied around binding posts. Use either 10 or 12 gauge wire.

Condenser

The condenser is a tiny storehouse of electrical energy. Its chief purpose is to prevent arcing of breaker points by taking up the sudden electrical surge when points open, just as an airchamber absorbs the hydraulic pulsations on a fire engine pump. When the points close again, the stored up energy is fed back into the primary circuit.

Ordinarily, under good conditions, a condenser will last the life of an engine. At least, make a visual inspection for signs of deterioration from heat, oil or moisture. One sure sign of a defective condenser is the appearance of breaker points. Blackened points generally indicate a defective condenser. If you had poor results with breaker points last season, by all means have the condenser tested. Most well-equipped garages or automotive repair shops can test it for you. Some boatmen like to carry along a spare which, I believe, is a good idea since they cost so little. Try to get one sealed in an airtight package to keep moisture out. When buying a replacement condenser, be sure to get the same type or one having the same capacity as the original because this part is balanced with the coil.

Coil

Your coil is nothing more than a transformer which steps up the potential of the primary circuit to several thousand volts, enough to jump the spark plug gap. Like any transformer, the enamel insulation of the windings is subject to deterioration from heat, moisture and age. Of course, any leakage within the coil is just that much energy taken away from the spark plug. Coils do not go bad suddenly any more than do varnish or paint, but may depreciate gradually, depending upon the exposure.

I have seen coils become worthless in a year when mounted in a hot location, such as on top of the cylinder head. Those in a better location, often last as long as the engine. The nice part about coil testing is the fact that a failing coil can usually be discovered long before it causes trouble.

There is no mystery about coil testing and it is no more difficult than hooking up an oil gauge to measure pressure. If you wish, you can take your coil off the engine and let a well-equipped repair station test it, or you can even make your own tester and test it on the engine with practically the same results.

To test the coil, hook up the coil tester in series with some part of the high tension system, usually between the coil and distributor. With the spark gap set at zero, run your engine somewhere between 900 and 1200 r.p.m. and gradually open the gap until spark pulsations become irregular or quit entirely. This should not be less than $\frac{3}{8}$" or 9 mm. for best results. 5/16" or 8 mm. is the absolute minimum. The ability to jump this gap under conditions of no load is assurance that there is enough energy to jump the spark plug gap when running at full load. If the sparking is irregular before reaching the minimum gap above, and if breaker points are

in good condition, replace the coil. You should use the same type of coil as a replacement although the best quality of heavy duty coils are always a good investment. If you change the type of coil, be sure to change the condenser, since these two units are matched together and work as a team.

Magneto

Your magneto can be tested either on the engine or ashore on a properly equipped test bench. If tested on the engine, follow the same procedure given under coil test but, before doing so, check condition and gap setting of breaker points. (See engine manual for gap setting.) Don't forget to lubricate the magneto.

(To be continued)

"MAYFLOWER" SAILS AGAIN

(Continued from page 36)

board the *Mayflower* after the arrival of the vessel in American waters.

In 1898, it was rumored in yachting circles that *Mayflower* had been sold to the King of Belgium for a royal yacht. This gossip proved to be unfounded and, on March 19th of the same year, she was sold to the United States Navy. She was taken to the Brooklyn Navy Yard, where she was converted into a dispatch boat. Her sails and spars, with the exception of her masts, were removed, and she was fitted with six 6-pounders.

Mayflower saw some active duty in the Spanish-American War, capturing the schooners *Santiago*, *Apostol*, *Severita* and the steamer *Newfoundland*. In January, 1899, she took part in the ceremonies in connection with the occupation of Cienfuegos, and had the honor of firing the naval salute as the Stars and Stripes were raised over the city.

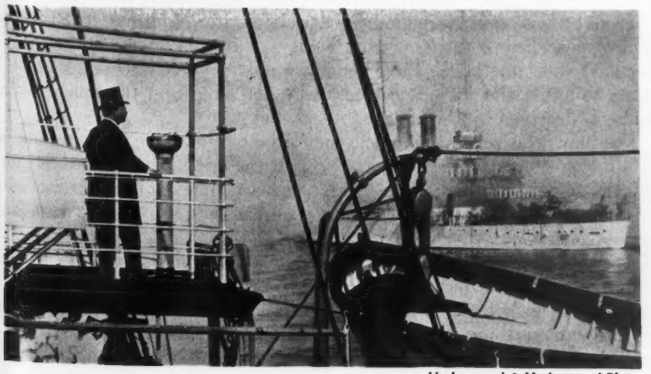
After the Spanish-American War, *Mayflower* saw service in the Caribbean as a surveying vessel, and was then laid up for a year. In 1902, she was recommissioned by the Navy and assigned to duty as the presidential yacht for President Theodore Roosevelt. In the autumn of that same year, she was taken by the Navy for use as Admiral Dewey's flagship at Guantanamo Bay, which had just been established as a naval base. The following year, *Mayflower* was sent to Colon to watch developments in the Republic of Panama and, when this country recognized the Republic of Panama, the negotiations were completed on board her.

In the summer of 1904, she accompanied the North Atlantic Battle Squadron on a cruise through the Mediterranean and remained at Athens for some time as her crew contracted typhoid fever. In July, 1905, she was recommissioned as presidential yacht and, on August 5th, the delegates to the Peace Conference, which ended the Russo-Japanese War, were entertained on board off Oyster Bay, N. Y., going thence to Portsmouth, New Hampshire, when the peace treaty was signed.

For the next twenty-four years this majestic old vessel served in various naval duties and was used as a yacht by Presidents Taft, Wilson, Harding and Coolidge. Mr. Coolidge never went to sea but loved smooth water sailing in *Mayflower*. On several occasions, she reviewed the fleet, and many foreign dignitaries, including members of royal families, trod her decks.

Just twenty days after President Hoover took office in 1929, *Mayflower* was retired as a presidential yacht and was decommissioned at the Philadelphia Yard. There she caught fire in 1931 and was practically gutted. After that, she was sold back to private ownership, and came within an ace of being scrapped for her junk value. Thorough surveys have shown the hull and original main propulsion machinery to be in an excellent state of preservation, a great tribute to her designer and builder. Recently, *Mayflower* was acquired for the Coast Guard, and was refitted as an anti-submarine vessel to be operated by that service.

There is nothing a boat lover likes more than to see a vessel escape the boneyard, and the news that *Mayflower* is to sail again will be heart-warming to yachtsmen the world over.



Underwood & Underwood Photo

President Theodore Roosevelt reviews the Fleet, 1906

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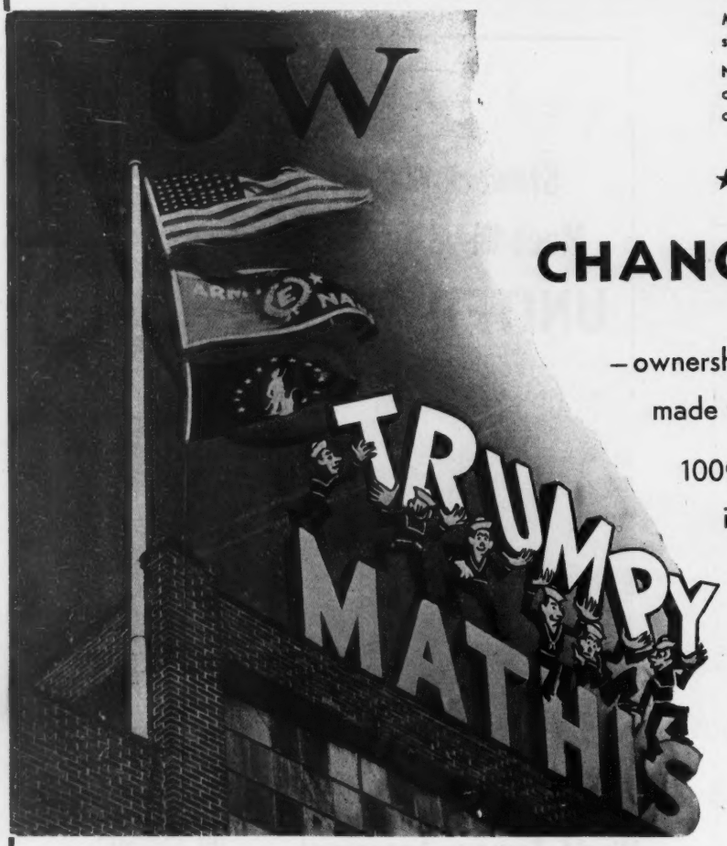

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"IT'S DONE WITH SPHERES"

(Continued from page 44)

Years ago a device called a Spherant was produced by a professor, that utilized the principle of the sphere for determining position and this instrument was discussed in the Proceedings of the United States Naval Institute. I have before me a book called *The Methods of Modern Navigation* by Edward J. Willis, Fellow American Institute of Electrical Engineers, Member American Society of Mechanical Engineers, Member American Mathematical Society and Member American Association for the Advancement of Science. In Appendix IV, he shows drawings of an invention of his which he states weighs slightly less than two pounds and can be put in a case measuring 8½" x 7½" x 2". This instrument determines the position line within two angular minutes of correctness in two minutes of time. This instrument consists of two semicircular arcs set in planes at right angles to each other, thereby using the principle of the sphere. In Appendix V, he shows a somewhat more elaborate instrument that is even more accurate and faster.

About twenty or more years ago, Professor Charles Lane Poor, of Columbia University, devised a method of solving the navigational triangle using four settings of a pair of dividers on specifically graded scales; and one simple addition of three numbers. I think this is the best of all mechanical methods as the equipment is simple, cheap, not easily injured and, if injured, can easily be replaced.

In the *American Air Almanac* for 1943, on Page X, there is a discussion of the use of the Astrograph which is a device for projecting onto the navigator's chart the curves of equal altitude for selected stars. On Page 118 of the 1938 edition of Bowditch, it refers to one of the instruments that has been devised for mechanically solving the astronomical triangle. The final sentence reads: "Such instruments are costly and subject to instrumental errors but they are very useful for checking computations and may some day be devised in a form useful to the navigator."

With these various instruments available, why have they not been generally accepted? It is necessary to remember that in working a sight certain operations are common to all methods: observing and correcting the altitude and obtaining the declination and local hour angle with the aid of the *Nautical Almanac*. This work takes half the time required and, after this is done, the remainder of the work can be accomplished by H.O. 208 in between two and three minutes and in less time by H.O.214. Instruments are subject to instrumental errors and on the small scale of a globe available a small instrumental error makes a big error in the result. A calculating machine is less subject to error than a plotting device but reading and setting verniers and micrometers takes as much time as the figuring required when using tables and is just as subject to error.

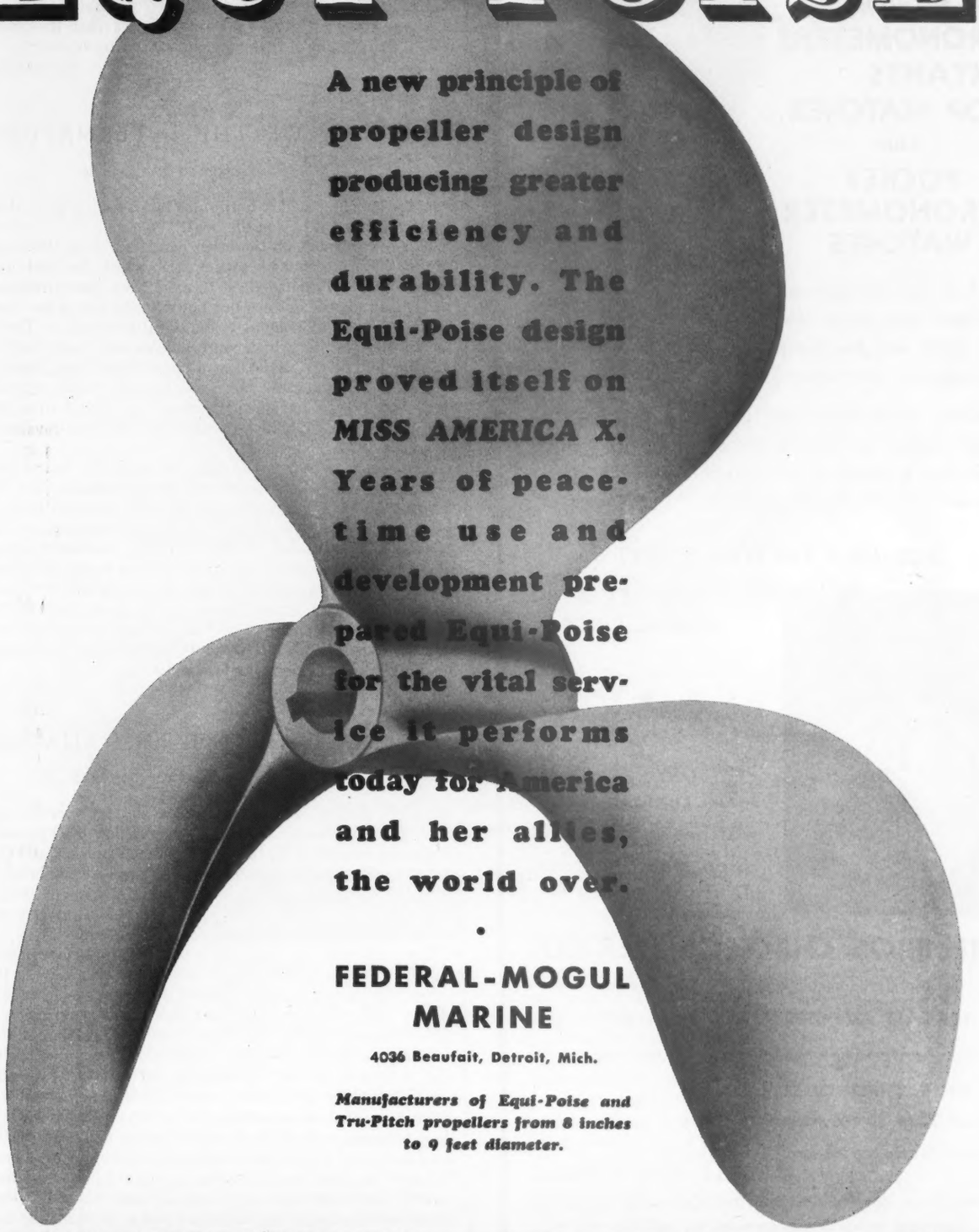
The article in *Fortune* does not claim an accuracy of closer than ten miles and states that it takes ten minutes to cross two position lines. This work, of course, is done after the altitude, hour angle and declination have been already determined. On a sphere of the type discussed, a well sharpened pencil would draw a line ten miles wide and the accuracy in setting the spherical protractors would require the greatest care; in addition to which, the protractors and verniers and micrometers are delicate instruments rendered useless by bending or by even a jar and, in the end, the position has to be transferred to a regular geographical flying map in the method described in *Fortune*, whereas it is put there directly when worked by one of the present day standard methods.

The scale of the globe described in *Fortune*, if the globe is to be small enough to fit into a plane at all, is such that it would seem to be almost impossible to advance a line of position with any degree of accuracy, so that simultaneous sights must be taken. The example given in the magazine tacitly assumes simultaneous sights but, to obtain these sights, it requires two navigators, a luxury not usually indulged in in a plane. This bears out a wise remark made by that salty writer, Squire S. T. S. Lecky, in his unexcelled *Wrinkles*, where he says: "It is necessary to beware of so-called short methods. They generally only look short because care is taken to apply the various corrections beforehand and the unsuspecting reader is deceived by this device."

The man who wrote the article for *Fortune* must have been unfamiliar with navigation because he tries to present the methods now used as quite difficult and the method he describes as most simple. In fact, the methods used today are simple and much more accurate than the ones he describes. Before Nathaniel Bowditch published his original work in 1802, he made a trip in which every member of his crew, including the ship's cook, became able to take and calculate lunar observations and plot the daily position of the ship. Since those days, navigation has been greatly simplified and does not present anything faintly resembling the difficulties described.

Methods of navigation are subject to the errors of observed altitude and the time. In an airplane, the time may be accurate but the altitudes observed with a bubble sextant are subject to substantial error. Why in-

EQUI-POISE



A new principle of propeller design producing greater efficiency and durability. The Equi-Poise design proved itself on *MISS AMERICA X.* Years of peace-time use and development prepared Equi-Poise for the vital service it performs today for America and her allies, the world over.

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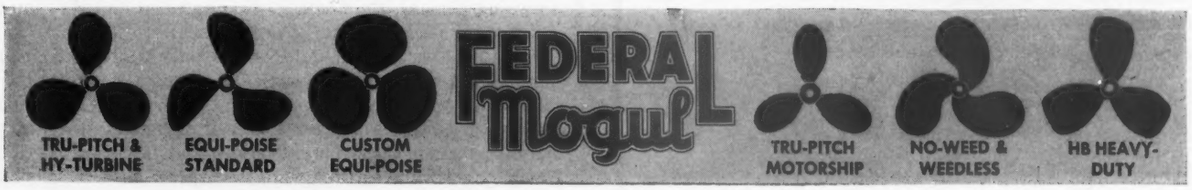

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troduce the possibility of additional substantial errors? In Eddie Rickenbacker's article, it seems clear to me that he got lost because an octant slid across a chart table, as a result of which it was rendered useless, although its uselessness was not at once appreciated. Why introduce additional delicate equipment that can be as easily rendered inaccurate, particularly when figures from tables can be taken out and added together as rapidly and without as much possibility of error?

Unfortunately, I am afraid this letter will not get the publicity that the *Fortune* article got and I am sure it will not reach the same audience but I would like it published as written as a matter of record.

GEORGE E. ROOSEVELT

THE WHY OF THE INTERNATIONAL "14"

(Continued from page 42)

average man can hold it horizontal like a fishing pole, showing how little capsizing effort it has on the boat.

The centerboard, on the other hand, is a deep 100-pound symmetrical airfoil casting with high aspect ratio which has little resistance in the water but is sufficient ballast to more than counterbalance the spar.

The sail plan is modern but not extreme and is the result of much experimenting in an attempt to find ideal proportions. The maximum sized genoa is the largest which can be successfully handled by one man in all weather and be properly set on a boat of this beam. Small jibs are seldom used because in weather which calls for such a sail, regattas are apt to be cancelled. The parachute spinnaker is large enough to be effective and not only adds to the enjoyment of racing but provides excellent training in sail handling.

The 14's have shown that they are nearly the fastest thing of their size afloat in light airs, and it is all the more remarkable, then, that they should do so well in heavy going because the light weather boat is seldom at her best in heavy weather. But the 14's were designed for the rough going of the English Channel and it is in heavy weather that they really shine. Then we see that good design means perfect handling under even the worst conditions of wind and sea. Some other boats will develop such a helm as nearly to pull your arm off; some will hang in stays and refuse to come about; some will "submarine" on a reach or trip on the chine and roll over; but the 14 sails merrily on in perfect control, the sweetest handling boat in the world, I think, and the most fun.

GET AFLOAT THIS SUMMER!

(Continued from page 24)

has given them a definite place in the country's service and, at the same time, is adding materially to their knowledge of all phases of boat handling and seamanship. By becoming members of the Coast Guard Auxiliary, whose flotillas now are established in virtually every boating center, these yachtsmen are finding that in fulfillment of their patriotic obligations to this organization there is a new zest, a heightened interest on the waterways which far eclipses mere boating for pleasure.

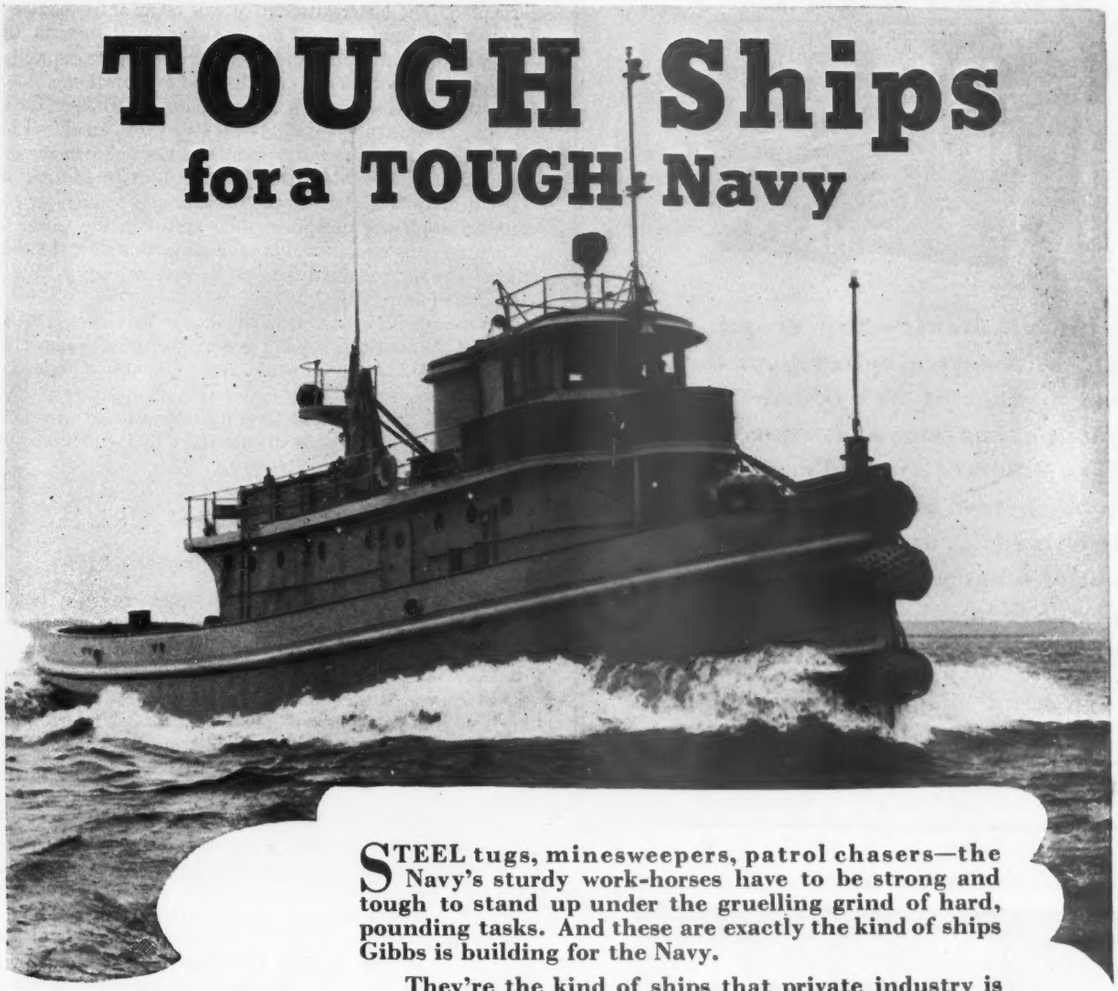
The purpose of the Auxiliary is fourfold: to further interest in safety at sea and upon navigable waters; to promote efficiency in the operation of motor boats and yachts; to foster a wider knowledge of, and better compliance with, the laws, rules and regulations governing the operation of motor boats and yachts; and to facilitate the operations of the Coast Guard.

At regular flotilla meetings, yachtsmen are gaining an intimate knowledge of rules of the road, of knotting and splicing, of signaling and of boat handling that has given them a competence hardly possible without expert direction in a field of recreation. A new camaraderie is springing up through these meetings, with all the shop talk, banter and tall yarns that are a good-sized portion of what makes boating. Instead of merely a cruise, these Auxiliarymen on their days off are combining the pleasure of being out on the water in their boats with actual patrol duties outlined by the Coast Guard. Their value is not to be minimized when we recall the many rescues of drowning persons, the boats in distress aided and the countless ferrying assignments performed in the past few years.

Since the Coast Guard and Reserve Act was amended on June 6th, 1942, many Auxiliarymen have become Temporary Reservists holding military status with ratings in the Coast Guard Reserve. These yachtsmen, offering to serve in Coast Guard duty in their spare time without pay, are now manning regular Coast Guard picket boats and patrol vessels as well as Auxiliary craft made available to the Coast Guard. Thus a large cross section of qualified yachtsmen who, as businessmen, could not devote their full time to Coast Guard duty, now is developing a reserve force that is daily releasing more and more regular Coastguardsmen for combat.

These Temporary Reservists are enjoying the distinction of enrollment

TOUGH Ships for a TOUGH Navy



STEEL tugs, minesweepers, patrol chasers—the Navy's sturdy work-horses have to be strong and tough to stand up under the gruelling grind of hard, pounding tasks. And these are exactly the kind of ships Gibbs is building for the Navy.

They're the kind of ships that private industry is going to need after the war, too. And Gibbs knows how to build them for long, efficient life at the hardest jobs.

The steel tug shown here is one of many such ships we have built for the Navy in this war and the last one. Few other ship-building organizations have had so much experience in this type of construction and repair. Few if any, have made a more enviable production record. Remember this when peace-time activities are resumed . . . Gibbs has the know-how, the organization, the facilities and the spirit to give you super-service in construction and repair of all types of service vessels and pleasure-craft.

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ARMY E NAVY

Helping The Blind Help Themselves And Their Nation

America has many thousands of sightless men and women who are eager to do their part in the war effort. Because they are blind they are given small opportunity but a little thought and study can usually open a way for them to help both themselves and their nation.

The Gibbs Company has found tasks for many blind people—tasks well suited to their nimble fingers. These men and women are proud of their new-found earning ability and their chance to do war work. They're proud because they're helping to relieve the manpower shortage.

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Nothing indicates the growing might of America better than the large number of Army-Navy "E" Pennants that float above our war plants. Hubbard's South Coast Company has just received its *third* such award . . . an honor that gives proof of what we are doing for all America today and what we can do for a yachting America tomorrow.

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You can't blame any Eskimo for wanting to equip his kayak with Paragon Gears. Of course we're too busy right now to accommodate him. Yet the idea is a good one. For in Arctic or temperate climates, in bad weather or fair — Paragon Gears give light naval craft the same dependable service that made them, in peacetime, standard equipment on over 90% of America's pleasure boats.

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in a service that marks a radical departure in the military policy of the United States. Heretofore, Federal military duty could be performed only on a full time basis. The part time duty is arranged to be compatible with their business and is, if private affairs change so that a member cannot spare this time, he can be placed on the inactive list or have his resignation accepted. The latter alternative will be an infrequent exception, judging from the splendid record made so far by Reservists already in service. Their devotion to duty and obedience to orders, as well as the competent seamanship shown, have gone beyond expectation.

In turning to service in a military capacity while on the water this coming season, these yachtsmen will be provided with an allowance to supply regulation uniforms to be worn on duty in their chosen areas. They receive no pay, but if while on duty they become ill or are injured, they will have the benefit of Government hospitalization and medical or surgical care. This militarization will not affect their status in the Coast Guard Auxiliary, which remains an active, living organization of real value to the Government. The same customs prevail in the Auxiliary with little or any use of Reserve military titles.

To those who have voiced the gloomy prospect that boating may be a thing of the past this coming season, there is the answer. In light of other changes in this war-torn world and this country under arms, boating will hold its own and add its material contribution to the total war effort whether its devotees find time for only the few precious hours to relax afloat, or whether it is possible for them to devote time in the Coast Guard Auxiliary or Temporary Reserve.

HAWAIIAN CRUISE

(Continued from page 33)

during the night, we were none too sure of our dead reckoning on account of variable current conditions. Current charts are not to be wholly depended on hereabouts as the current often varies with the strength and direction of the wind. However, guano odors can be picked up surprisingly far to leeward of these bird-inhabited islands and in the early morning the birds put out from them in large flocks for fishing. At 9:00 a.m., we picked up Millers Peak, the highest point on the island, and by noon came abreast of several indentations on the southeast side, known as Adams Bay.

Luckily, it was a perfectly calm day and there was little swell, enabling us to anchor off the middle cove in 20 fathoms and make an easy landing with our eight-foot folding dinghy. At the foot of the steep, rocky, trail there is a pit containing a considerable amount of brackish rain water. Following the trail upward, we came to the top of the bluff, about 800 feet above sea level and covered with guano deposits and hissing, screeching gannets of all descriptions, guarding their hundreds of nests. From the top, we saw a group of three large Japanese Diesel sampans pass a mile to the north of Nihoa, bound WNW. In the light of events on December 7th, just two weeks off, we wonder now what they could have been up to. Later we came across an ancient Hawaiian ceremonial site and a large stone image. Uninhabited, bare and rocky except for a small valley in the center, after three hours of climbing and poking around, we were content to return aboard and leave Bird Island to the birds.

Although we had sufficient water and supplies aboard to have sailed west to French Frigate Shoals or Leysan Island, the war situation had sounded ominous when we left Honolulu and, not having a radio with us, we decided to return to Kauai.

After circling the island twice, we started tacking back toward Kauai against a two-knot current, but the trades held light and steady allowing us to make our easting the easy way. The following morning a Navy patrol bomber swooped suddenly out of a huge cloud formation, dropped to about 500 feet, looked us over and waved to us as it flew off in the direction of Pearl Harbor.

Coming up to the north coast of Kauai, we bucked strong head winds and heavy seas. Arriving off the port of Hanalei, we put into Hanalei Bay

Chow time. The galley of "Confucius" is an asbestos-lined drawer which extends aft under the cockpit. It contains three stoves and a good supply of food

ICY MOUNTAINS... ...CORAL STRANDS

American Infantry Troops come ashore in Iceland in Hall-Scott powered landing boats.

Hall-Scott INVADERS and DEFENDERS are on active military service in small craft the world around. Their remarkable performance records — and particularly, the extraordinary number of hours these engines run before overhaul is needed — is no matter of chance. On the contrary, it is the direct result of strict adherence to dimensional tolerances much closer than the usual practice. On all Hall-Scott crankshafts the tolerance is one-half of a thousandth on the main journals, and one-quarter of a thousandth on the bearing itself.

United States Marines come ashore in the South Seas in Hall-Scott powered landing boats.

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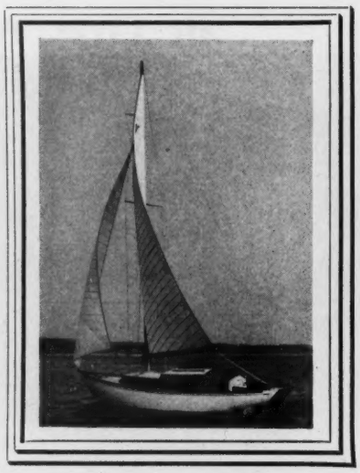

A Picture of Victory

Our peace-time endeavor always was to build better boats faster through modern methods and facilities. It was the building of such boats as the "Visitor," 30′ stock auxiliary sponsored by Donald B. Abbott, that laid the groundwork for our present production for the Services. In the picture above we see Victory — for when Victory is won you yachtsmen will be back at the helms of your own boats and we shall be building yachts like "Visitor" for you.

Palmer Scott & Co., Inc.
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Navy and Merchant Marine

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Hanalei Bay, on Kauai, where we called on the return voyage

and anchored in five fathoms a quarter of a mile off the end of the wharf. Here we found the swell was so heavy that we finally decided to go up the Hanalei River. The entrance is narrow, with only five foot depth at this time of year, but we made it easily at high tide and found sheltered water.

Kauai is the only island in Hawaii that has rivers navigable for small craft. Here, in the most protected of spots, *Confucius* sat like a duck in a mill pond and we relaxed for a couple of days of loafing and fishing. Known as the Garden Island, Kauai is by far the most attractive of the islands and Hanalei is its grandest spot. But such a life prolonged is only for landlubbers and the morning of the third day found us slipping out over the bar at high water. A stiff NE trade was blowing and soon we were bucking into heavy seas on the beat up the north coast and along the northeast coast, after we had turned the corner and brought the wind aft.

At 6:00 p.m., we foamed in past the Nawiliwili Harbor light before a whole sail breeze and, rounding the breakwater and then the sea wall, entered Nawiliwili, the best harbor on the island and one of the only four harbors in Hawaii that offer protection in any weather. With our 13-pound Northill fast in four fathoms, we were once more peacefully at anchor, with the intention of remaining until provisioned and ready for our long run back to the California coast.

Then came December 7th. Together with the Ketch *Stranger*, from San Francisco, we were told by the harbormaster not to leave Nawiliwili.

On a particularly bright moonlight night, a few days before Christmas, my wife, Rosalie, and I had been gamming with the skipper and crew of *Stranger*. Returning aboard *Confucius* about midnight, we had just hit our bunks when — wh — eee, a loud whining whistle sounded close overhead and a second later a concussion shook the entire harbor and echoed off up the deep valleys. Seconds later, a shell exploded in the water a scant 30 feet astern of *Confucius:* the harbor was under bombardment! Looking seaward, we could plainly see a dark object on the water. It was a Japanese submarine which had surfaced and was shelling Nawiliwili.

Soon a large canefield ashore was afire, started by the first two tracer shells. The third shell plunged into a huge gasoline storage tank; the Nips were getting the range and by now the whole harbor was illuminated as bright as day.

We were moored to the sea wall directly in the line of fire between the sub and its objectives, which were the oil tanks and the large machine shop and marine ways. Our first inclination was to jump onto the sea wall and dash ashore but, on second thought, we stayed put as a lot of shrapnel was flying about. Twelve six-inch shells were fired in the following six minutes and then, as suddenly as it had appeared, the dark outline moved off.

Naturally considerable pandemonium reigned ashore; the cats and dogs for a mile around disappeared into the mountains, many of them not to return for several days. As we hurried ashore along the sea wall, hundreds of panicky wharf rats ran from the dock, across the road and disappeared into the cane fields. The wharfinger, an Oklahoma Indian who had lost an arm in World War I, ran from house to house with a .45 Colt, ordering every able Japanese male resident out into the cane fields; soon the fire was under control.

The following day we left our sea wall mooring at high water and threaded our way up past the numerous sand bars at the mouth of the Nawiliwili River to moor to a couple of cocoanut trees a quarter of a mile up from the bay.

After a long and thorough search of the island, we finally found some long six by eight sticks of lumber and four abandoned truck wheels that made a sturdy trailer. Sinking it, we warped *Confucius* aboard and hauled her up into a lonely valley to "sit it out" for the duration.

GAS ATTACK against fire at Sea!

Some of the military and naval craft protected by Kidde built-in systems:

PT-Boats
Torpedo Boats
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This gas attack *saves* fighting men's lives — and precious equipment, too. When fire breaks out aboard one of Uncle Sam's sea-going bantams, it's instantly smothered by a cloud of carbon dioxide snow-and-gas. That's the swift, sure, modern method of fighting fire — the Kidde extinguishing system.

Yachtsmen who enjoy this protection on their own boats may share our pride in Kidde's service record and will want to keep their equipment in shape for the duration. Kidde representatives or boat builders will be glad to help.

Kidde portable and built-in systems were formerly known by the trade name "LUX."

Walter Kidde & Company, Inc.
415 West Street, Bloomfield, N. J.

K Kidde

SPEAKING OF CHARTERS

(*Continued from page 28*)

liked the boats. Of course, our past performance and recommendations from former owners were important items used by the broker in "selling" us to the owners. That same evening we went aboard three fine sloops riding at their moorings in Larchmont, Mamaroneck and Five Mile River.

Here were craft in full commission with their owners aboard to point out all the features. With only two days left before we would take over, there was no chance of another charter which might return the ship with some defect. It was just a question of which one we fancied handling and living on. The choice was easy. We took a splendid 38-foot Marconi cutter which proved to be the best yet, and sailed her for sixteen days.

She proved so happy a choice that we took her again for the Labor Day week-end, once more being able to secure her only two days in advance. This pointed out another advantage of chartering close to the effective date. For two weeks, rain had been falling regularly. As the week-end approached, it seemed a good gamble that the bad spell of weather must be exhausted. We took the gamble, fortified by our fatuous belief in the signs we thought we saw in the sky and wind. We hit the jackpot and had three perfect days, two of which provided plenty of breeze. Had we chartered weeks in advance, the weather could have spoiled a relatively expensive pastime for which we had contracted to pay.

The year before, while we nervously sought those essential motor parts so that the owner could produce a complete craft for the already-belated charter referred to in an earlier paragraph, we played safe by asking the broker to locate another yacht in case we needed it. Between 8:30 a.m., when we caught him at his breakfast, and 10:00 o'clock, he lined up two perfectly good prospects as handy as City Island. They would have cost us about ten per cent more but they certainly turned up when wanted.

The conclusion seems to be that, where good auxiliary cruisers are in commission at all, in these days enough owners will consider a charter just as readily on the spur of the moment as they will earlier in the season. Probably, if you keep in touch with a live broker and watch the charter field, you can safely make your decision as your great moment approaches. Then, if your vacation time is changed by your boss or if the yacht you think you want is not ready when the time comes, you save worry and perhaps money. There is no doubt that a charter is the answer to many a poor but ardent sailor's problem and, at the same time, a means of keeping many a yacht in commission by the financial aid it provides for her owner.

YACHTS are unquestionably expensive luxuries but your cost for chartering an auxiliary cruiser between 30 and 40 feet over all is definitely reasonable considering the high degree of pleasure and healthful exercise you get. From $80 to $150 a week, or from $250 to $500 a month is about the range of price. Our charters have averaged about $225 for sixteen-day periods and our other expenses for two ran about $60, including a few meals ashore, ice, provisions, gasoline, and something to splice the main brace. It all added up to about $18 a day for two people. From these figures, you can calculate what your particular charter party ought to cost per person if you are an able accountant and puzzle solver.

You can understand any yacht owner's reluctance to charter so personal a possession as a trim auxiliary cruiser. There are many of his personal effects on board, too. The yacht's very character is sometimes almost a part of her owner's personality. There is an intimacy between a man and his yacht which is peculiar to the sport. Therefore it behooves any charterer to respect both the tangible and intangible features of the craft he uses. He will get more of the real enjoyment of yachting if he treats his charter as though she were his own. If he will whip a rope's end, see to the chafing gear, patch a sail, clean the boot-top and topsides, keep the motor clean and the grease cups full, keep shipshape below decks, and let no detail of seamanship go undone, his cruise will be a greater satisfaction, his pride will stand up, and his reputation will reflect to his advantage when he seeks another charter.

An owner listens to what the broker knows about a prospective charterer. If the broker produces letters from owners who have done business with the man and who commend his treatment of their boats, all the better. Then the owner usually meets and talks with his prospect so that he can form his own opinion of the man's attitude, knowledge and ability.

That 34-foot ketch we took three years ago illustrates an owner's grief resulting from chartering too readily. The rigging and sails were a bit old but still sound, if handled well. The motor was in fine shape but, of course, required ordinary care. She went away from City Island on a charter for a man claiming to be a motor boat sailor who would like to try sail for a change. Some days later, he abandoned the boat in Hyannis with a ruined motor. He said that the first day out the motor heated up and all along the cruise would run only until it virtually "froze up" from overheating. Imagine plowing along like that! He had merely been too lax to tend the grease cups on the water pump. The motor was run without cooling water. Then, one day, some water arrived when the motor was red hot and cracked the entire block. Weeks later, the owner finally got her back after

TODAY will be
YESTERDAY TOMORROW

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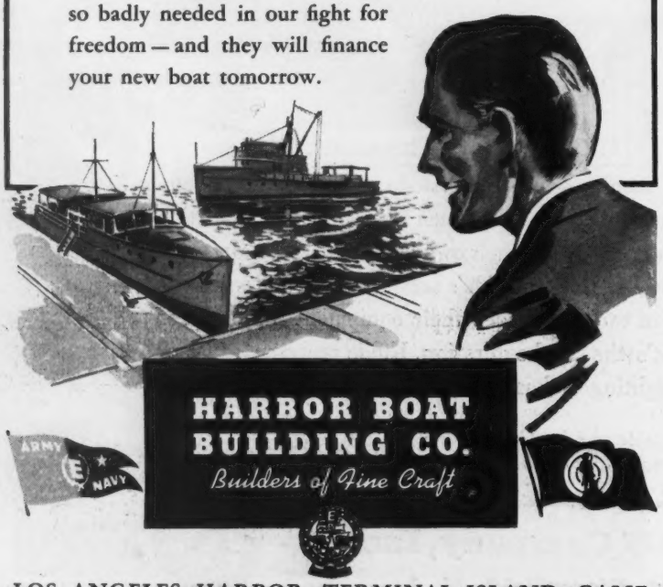

LOS ANGELES HARBOR, TERMINAL ISLAND, CALIF.

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On charter or in your own boat, there's real pleasure here. Logging 7 across Block Island Sound in a chartered sloop

hiring three different paid hands to fetch her, each one quitting in disgust after a few days en route. He paid nearly $300 to rebuild the motor.

Believe it or not, as soon as she was fit once more, he promptly chartered her again to some people who came along and shoved off the same day! It wasn't that he did not care for the boat. He usually lived aboard and had her fitted below in a comfortable manner. He was a good sailor and really proud of his boat — but he needed money that year.

We saw her later. There were ugly patches in the sails, the foot of both jib and mizzen had partly broken away from the booms, the topsides and deck were filthy, and parts of the rigging were badly frayed. On the port bow she wore a dent as big as your hat where she must have fetched up against a pier. We liked her so much on our cruise that we had already asked for a charter the following summer, but we cancelled the order when we discovered what had happened to this good ship.

There certainly was little profit for that owner from his charter parties. On the other hand, those other owners whose yachts we have enjoyed and who picked their candidates more wisely, not only enjoyed the income from the charter but had the satisfaction of seeing their boats returned — to use their own comments — "in better condition than when they left." We are proud of those comments but they spring from the fact that we are also proud of the boat we sail even if she be a "hired horse."

THE INTERNATIONALS

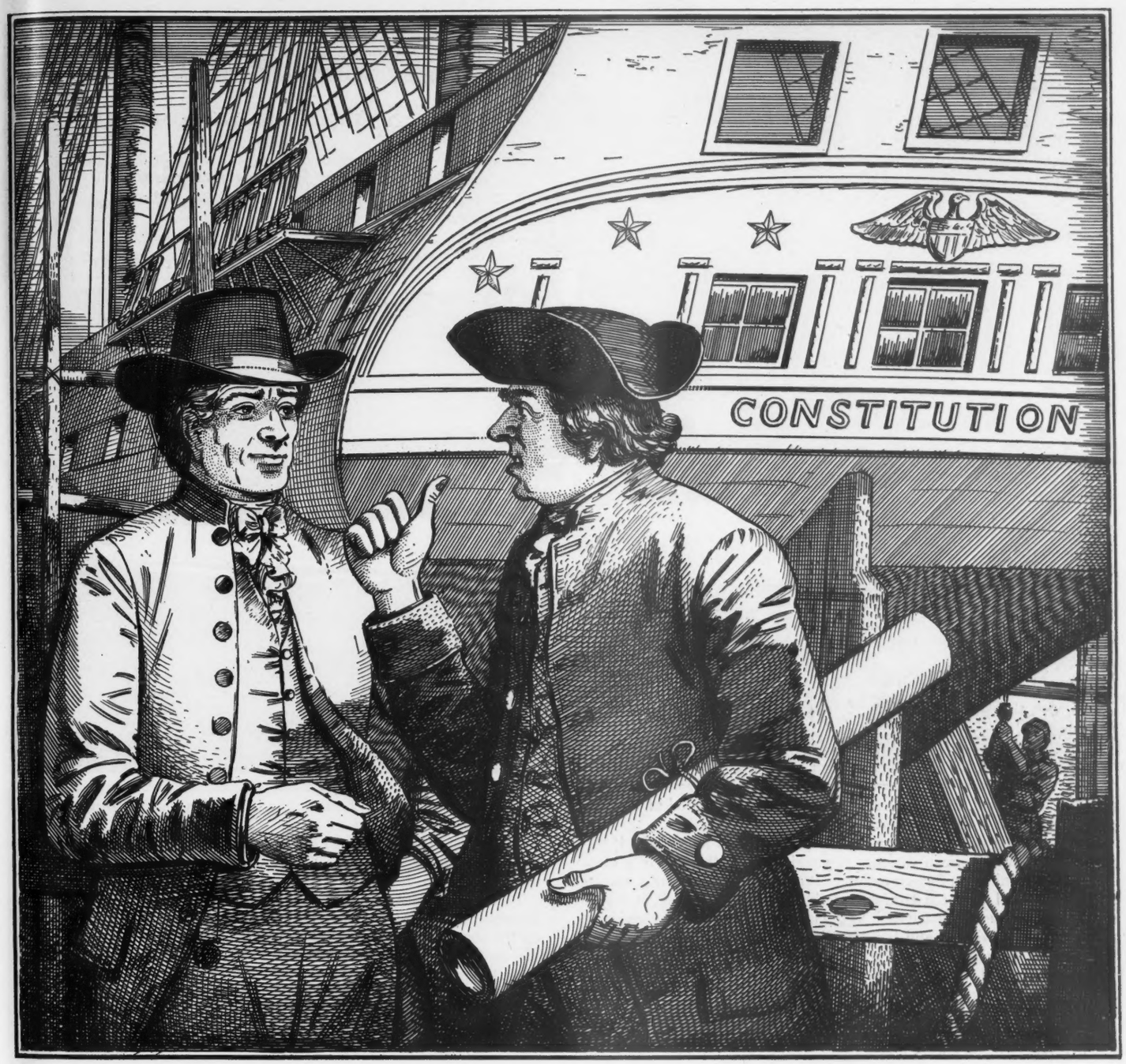
(Continued from page 31)

goes back to the period from 1925 to 1935, for it was then that its creators were racing in many different classes and were gainfully employing their time by making careful notes of desirable features which could be incorporated in the plans of the boat they would one day sail.

During the early thirties, most of these skippers were sailing Interclubs (a Long Island Sound class which had its beginning in 1925), with frequent busman's holidays on Six-Metre teams and in the afterguard of two or three of the America's Cup boats. But the Interclubs were their standbys and provided the best kind of racing until 1934, when it became apparent that their sail plan was in need of modernization. That year marked the advent of their switching over from the original Marconi rig to a taller, more modern one, and the addition of permanent backstays. This face lifting would have probably saved the day but for the fact that two or three of the outstanding skippers went to Bermuda — and on the waters of those balmy isles fell in love!

Research tells us that the name of their hearts' desire was *Saga*, as smart and high spirited a Six-Metre as these hearty mariners had seen in many a season. Inquiry revealed that her builder was Bjarne J. Aas — Norway's master designer and yacht builder whose racing craft had been a sensation throughout Europe.

"It was terrible," admits Corny Shields. "All I could think of on the way back to the States were the lines of that darned boat. She literally haunted me." On his return, Corny arranged a meeting of Magnus Konow (Norway's crack Six-Metre skipper), Eldon Trimingham of Bermuda (who was the owner of the famous *Saga*), Paul Shields and Egbert Moxham, drafted a letter to Aas outlining what they had in mind, and sat back impatiently to await a reply. What they were after was a real one-design class which would be suitable for inter-country as well as inter-fleet racing. What they had specified was a 21′ water line boat which was in many respects similar to a Six-Metre in so far as cost, crew and probable performance were concerned. Late in the autumn of 1935, the first plans arrived. The hull, with but a few minor suggestions, was judged to be just about perfect. Cruising accommodations were allowed for in the design, but these were eliminated, thereby permitting a larger cockpit and a smaller cabin trunk. The original sail plan was considered to be too small; Mr. Aas was not familiar with the relatively light breezes of the Sound. As a result, the rig was immediately changed to allow for a shorter boom and a higher spar — thereby permitting greater speed by reason of longer mainsail and



"THAT TUB'S A DISGRACE TO HER NAME!"

"A monstrosity," is just one of the terms that knowing shipbuilders applied to the *U. S. S. Constitution,* as they saw her growing on the ways.

"She's too long! Not enough beam! Looks like a toothpick! She'll break her back in a blow! Her armament's ridiculous!" These were frequent remarks about that famous old frigate, and then to top it off, her launching was a failure. She had to be pushed from the ways with a jack . . . an occurrence which named her as a hard-luck ship.

But she wasn't! *Old Ironsides* rolled up a glorious record proving that the Navy, then as now, knew ship design well. Fast, agile, tough, and savage, she set an example that today's Navy is following. It's an example which can inspire private yachtsmen, too. Offer your own craft to Navy or Coast Guard . . . and give your services if you can. Ask for information about the U. S. Coast Guard Temporary Reserve. Keep your boat and equipment shipshape. Obey the rules for war-time operation of private craft . . . and don't forget that War Bond purchases help the Navy, too!

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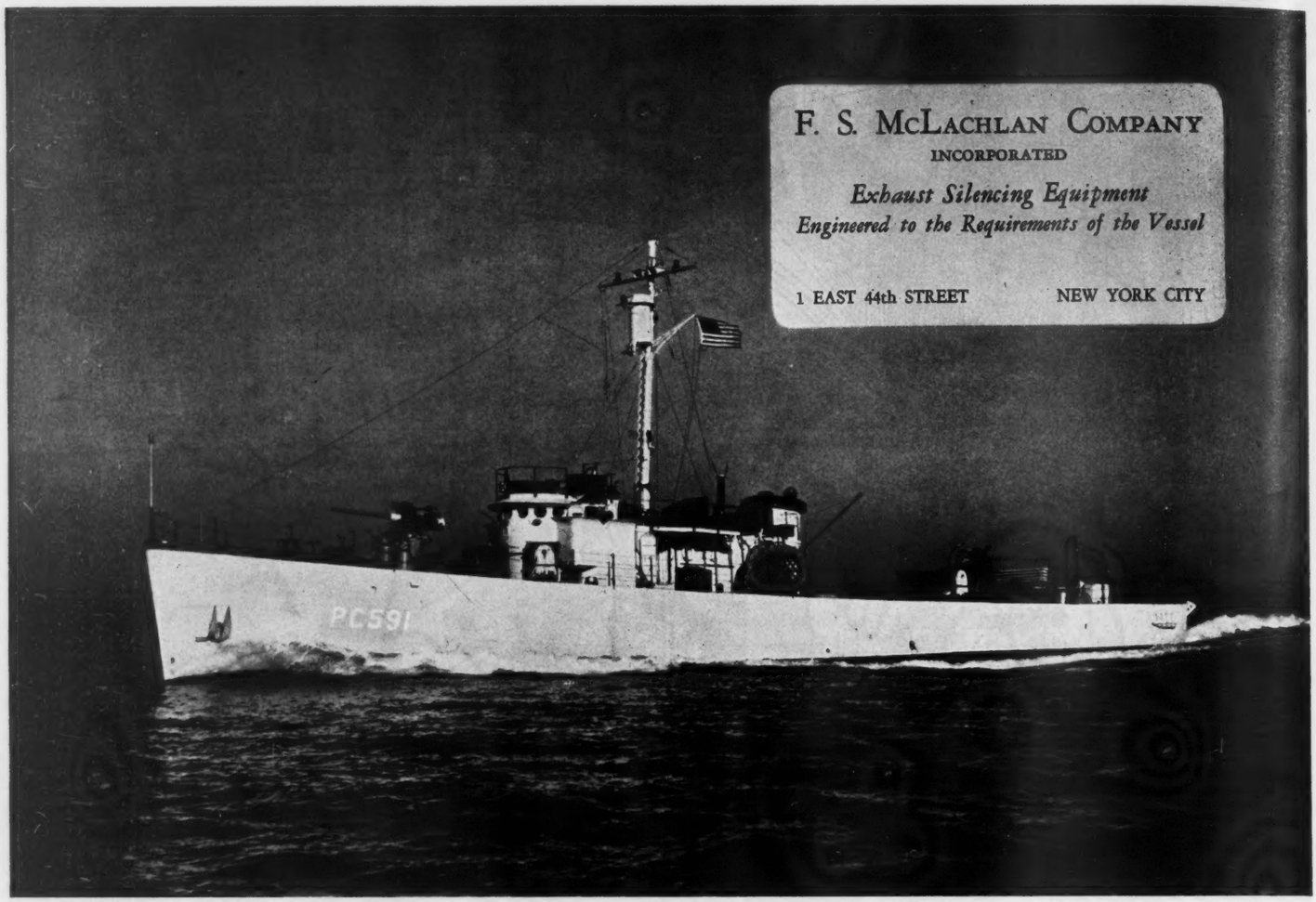

jib luffs. These and other minor alterations were incorporated in the final plans, and the new class was born.

But the major problem of the undertaking had yet to be solved: the question of how American yachtsmen would react to the idea of a class designed and built in a foreign country. Previous experience with foreign construction had not been entirely satisfactory. Looking back, it would appear that many yachtsmen took to the idea well enough, but a majority of the nation's designers and builders didn't like it one little bit. To be honest, their feelings were hurt and they didn't mind who knew it. The conspirators bent their heads to the gale and hoped for the best. They were convinced that their actions would, in the long run, be beneficial to the sport and would provide a stimulus to domestic craftsmen. The latter insisted they had been betrayed and that Messrs. Shields *et al* had let them down. Today, six years later, it is a gone and forgotten argument, for their harshest critics now agree that the Internationals have been an outstanding success.

\+ + +

At the outset, it was agreed that the class could be most effectively launched by establishing an underwriting syndicate, and that thereafter a class committee would be formed which would have the final say on all matters regarding the Internationals both here and abroad. The syndicate idea was an immediate success. Twenty-five boats were finally underwritten and ordered for the Long Island Sound fleet, with the first group to be delivered in the autumn of 1936. The twenty-five boats and their owners were: (1), *Ariel*, Charles B. Stuart; (2), *Rascal*, Frank E. Campbell; (3), *Maid of Honour*, Egbert Moxham, Jr.; (4), *Freya*, Henry L. Sears; (5), *Patience*, Clair Farrand; (6), *4 Winds*, Earle W. Hammons; (7), *Elsalan*, Ralph Manny; (8), *Ginch*, Henry L. Maxwell; (9), *Javelin*, C. H. Ferris; (10), *Brendy*, Donald G. Millar; (11), *Jick*, Stephen L. Szczotkowski; (12), *Alerion III*, E. P. Alker; (13), *Glory*, Paul V. Shields; (14), *Jester II*, Egbert Moxham; (15), *Patricia*, Edward L. Leslie; (16), *Alberta*, Albert Marx; (17), *Canvasback*, Robert McC. Shields; (18), *Hope*, Arthur Iselin; (19), *Susan*, Emil Mosbacher; (20), *Frolic*, Robert N. Bavier; (21), *Picaroon*, Robert W. Perkins; (22), *Myth*, Hugh M. Campbell; (23), *Aquavit*, Georg Unger Vetlesen; (24), *Wahini*, Howard F. Whitney; (25), *Aileen*, Cornelius Shields.

Today there are something less than a hundred throughout the world — nine in Bermuda, six in England, twenty-five in Oslo, fourteen in Northeast Harbor, seven in Marblehead, a few in Sweden and the original fleet of twenty-five on the Sound.

The specifications to which they were built are as follows: Length over all, 33′ 2″; length water line, 21′ 5″; beam, extreme, 6′ 9″; draft, 5′ 4″; sail area, 416 sq. ft.; displacement, 6,800 lbs.

Perhaps the most interesting feature of their construction was the employment of glued seam planking (there is no caulking whatsoever, save on the shutter plank), which was a technique with which Aas had much success in the construction of many of his Six-Metres. An investigation of an International hull testifies to the skill of his workmanship, for today their topsides are as smooth as the proverbial billiard ball.

The history of their construction is a story in itself. As testimony, there is on file in the office of the secretary of the association enough carbons of letters and copies of cables between the builder and the committee to assure the nation's paper stock for some years to come. No detail escaped the eagle eye of the committee in this country or the representative of Norwegian Veritas (the Lloyds of Norway), who had been authorized to check Aas' construction. Even the keels were weighed and certified. Every step of the way was reported, and materials were compared and investigated in infinite detail before they were incorporated in the actual construction. Many materials of American origin, especially paint, were shipped to Norway; some were used, and a few were returned without comment!

During the building of this first fleet other branches of the International Class were being established in England, Sweden and elsewhere, and consequently the builder received many individual queries. Repeatedly did the American committee remind Aas that no boat could be sold without their permission, else the Class would be disorganized before it ever existed. This was particularly emphasized in a letter from Egbert Moxham to the builder wherein he said that "the strength of the class must depend upon the maintenance of the class integrity, and this can only be done in the various countries if we insist on a group of representative yachtsmen taking the responsibility for the development in their countries."

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The Long Island fleet arrived in good shape, but for two boats which were damaged and later duplicated. Although *Aileen* was sailed and admired during Christmas week of 1936, it was not until spring, 1937, that the real tuning up took place. The boats were an unqualified success from the very beginning. It was found that they were fast in both light and heavy

weather (they have carried full sail and spinnakers in howling northeasters on more than one occasion) and that the ideal crew was four. Operating expenses proved less than had been expected, averaging $150.00 a month for a six-month season.

During the second season came the first (and last) action to throw any shadow on their one-design rating, as is told by "Bill" Taylor in a report to the English *Yachting Monthly:*

"Apropos of one-design classes, our Internationals on the Sound have had a terrific wrangle over mainsails, and finally came out with a solution to end all ills. Back in July some of the boys started a sailmaking contest, and eight or nine of them had very full mainsails cut, with hugh roaches. They got a lot of extra area, and some of them had to bend their masts, like the Stars, to make the sails draw. The rest of the class were licked, having already bought their allowance of sails for the year. It has finally been settled that the new sails may be used this year and one of them will doubtless win the championship; they will have to be cut down next season. And hereafter the Internationals are going to buy their mainsails in job lots, just as they have their spinnakers in the past. The sails will be all alike and will be drawn for. They are even talking of taking the standardization further into such things as bottom paint, for instance. All of which makes perfectly good sense to me. If you are going to have a one-design class, why not have it one-design in everything?"

The lesson taught by that experience has never been forgotten. For now not only are all sails made by one loft (and drawn for by lot) but all spars must come from the same builder, must have identical balancing points, and are approved and weighed by the class measurer!

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There is certainly no argument to the statement that a boat's performance is in ratio to the skipper's ability and sense of good sportsmanship. If nothing else, the Internationals — as a class — have developed astonishing esprit de corps among the men who sail them. The following letter is a case in point:

"When Corny Shields blew out his spinnaker beyond repair one year in the middle of the season, he refused to ask the committee for permission to buy a *new* spinnaker (which might have given him an advantage over the older ones) but, instead, bought a second-hand spinnaker from an inactive member of the class — one that was of the same age and cut as the ones then being used.

"Many times when boats have inadvertently headed for the wrong buoys, other members of the class have hailed them before getting ahead of them first.

"When protests arise, as they sometimes do on honest differences of opinion concerning interpretation of the rules, every protest I have been in has proved to be more than friendly on both sides. The class as a whole has not had more than about two protests a season — which is an unusually fine record in a class so keenly contested — and none of these protests have had the repercussions that protests in other classes sometimes have.

"In order to meet Bermuda boats on a fair team-race basis, the American boats voluntarily limited themselves each year to the same sails that the Bermuda boats had. Bermuda never asked for this, but nevertheless was very grateful.

"Each year since the first year of the class, up to and including 1940, a team was sent from the United States for a series of team races each spring in Bermuda.* Although keenly contested, these races were always conducted in a most friendly fashion. To make the racing completely fair, Bermuda moved the starting line into the open water of Great Sound and then always ran a Gold Cup Course — the best type of course (with every start a windward start) to test all points of sailing."

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Today the International Class continues its unruffled way. Twenty-five boats were built to race on the Sound; this summer almost all boats will be racing on the Sound. No doubt the same number will be scratching paint off racing marks ten years hence. The reason? It's really quite simple. Briefly, they are three in number: A well designed boat; an association directorate which allows no exceptions to the class rules and specifications; and a willingness to keep up with the times (viz., the current no spinnaker rule which so greatly simplifies the crew problem).

And, apart from the keen competition and grand sailing they have provided, the Internationals have demonstrated that the term "One-Design" is not a mere figure of speech. Proof of the pudding is in the following letter received just before the war from a prominent European yachtsman: "One of the greatest arguments here in Norway for the Class is that for the first time in yachting history a real one-design class has been created. You know as well as I do that the yachts in all other so-called one-design classes are anything but alike. I pray that your great idea may never be spoiled."

For the good and future of the sport, let us hope that the true One-Design idea becomes increasingly contagious in all One-Design classes.

* *Prior to the war, a return match was held on the Sound each summer.*—ED.

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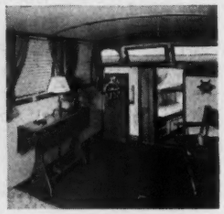

Lot of Room. That's what makes Owens owners—from coast - to - coast - and - lakes - included—feel they've got something. Forward the trim galley, compact washroom, clothes lockers and roomy two-berth cabin. Right at the left in this picture is the big divan that opens into a double bed. The Owens is the biggest 30-footer there is. You'll love it.

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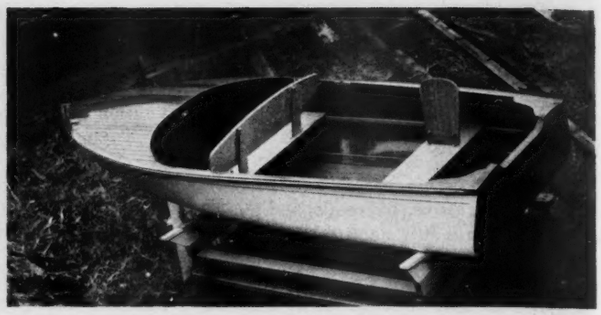

One of the first of the moulded hull outboard boats. She was built by Penn Yan Boats, Inc.

THE POST-WAR SMALL BOAT

(Continued from page 39)

contact with his craft than the fisherman or the power boat sailor, he will feel the advantages of the new construction more intimately. Sail boat design has for years been affected by measurement rules, the purpose of which is to assure healthy boats of seaworthy design and sound construction, and to classify boats as to size or potential speed for racing and handicapping purposes. One-design classes attempt to freeze the design and construction of certain boats so they will be evenly matched in racing, and so the cost of production will be decreased by standardization. While these rules have, no doubt, made the development of yacht racing as we know it possible, they have never been wholly successful in accomplishing their purpose and they have greatly hampered development. Rule beating, no matter how frowned upon, is the natural result of a progressive mind in competition. We no longer see the double-hulled wonders of the early Seawanhaka Cup days, yet those loudly deplored freaks produced no end of thrills and fathered the now well established and spectacular inland lake scows. The increasingly popular one-design class idea is directly opposed to experimentation, and the boats developed under the practically extinct open class rules, such as the International and Universal, which allow some variations within a formula, are prohibitively expensive. Perfection under those rules soon reaches a point where they closely approach a one-design class. Furthermore, the penalties on real or fundamental variation are so great that here again experimentation is thoroughly discouraged. As has been so often said, there is great need for a small development class of boats that can be built at modest cost and which encourage originality. While our one-designs are the only means of introducing hundreds of new sailors to the sport each season, they certainly discourage the rugged individualism that marked the days when a man would race his yacht across the Atlantic in the dead of winter to prove his claims for her ability or his own.

(To be continued)

UNDER THE LEE OF THE LONGBOAT

(Continued from page 45)

nery officer of one of His Majesty's battlewagons. A simulated torpedo attack by destroyers was to be made upon her and, to make the attack more real, this leftenant commander rigged a couple of explosive charges and hung them in the water from the ship's boat booms. Idea was that when the attack came the charges would be exploded electrically and would give the effect of torpedoes striking home. One thing the gunnery officer didn't figure on was the turn of the tide. The battleship lay at anchor when the destroyers put on their show and the changing tide dragged the bombs alongside — one well forward and one amidships. "Boom!" went the first one, and blew a hole in the ship's bow. You may think that that was when the leftenant commander was passed over. But no. "Boom!" went the second charge. The Admiral was leaving the ship at that moment and he left it plenty fast, with all his clothes blown off. When the Admiral got aboard — *that* was when the leftenant commander became a passed-over leftenant commander.

Well, boys and girls, spring will soon be here and maybe I'll once again have something to write about the sport of sailing. This is anything but a promise and hardly even an authentic hope. But, when sailing days do come again, I hope this fervently: that the youngsters of eight to sixteen will go to it with the will to victory that animates all the ex-yachtsmen in all the United Nations' floating forces. For it is an incontrovertible fact that the officer or man who was raised in sail makes a better Navy sailor quicker than the one who is as green as his uniform is blue. I've been raising the issue for years and years, and even the Brass Hats, aware of the Navy's need for small boats and small boat sailors, are coming to agree with me on that.

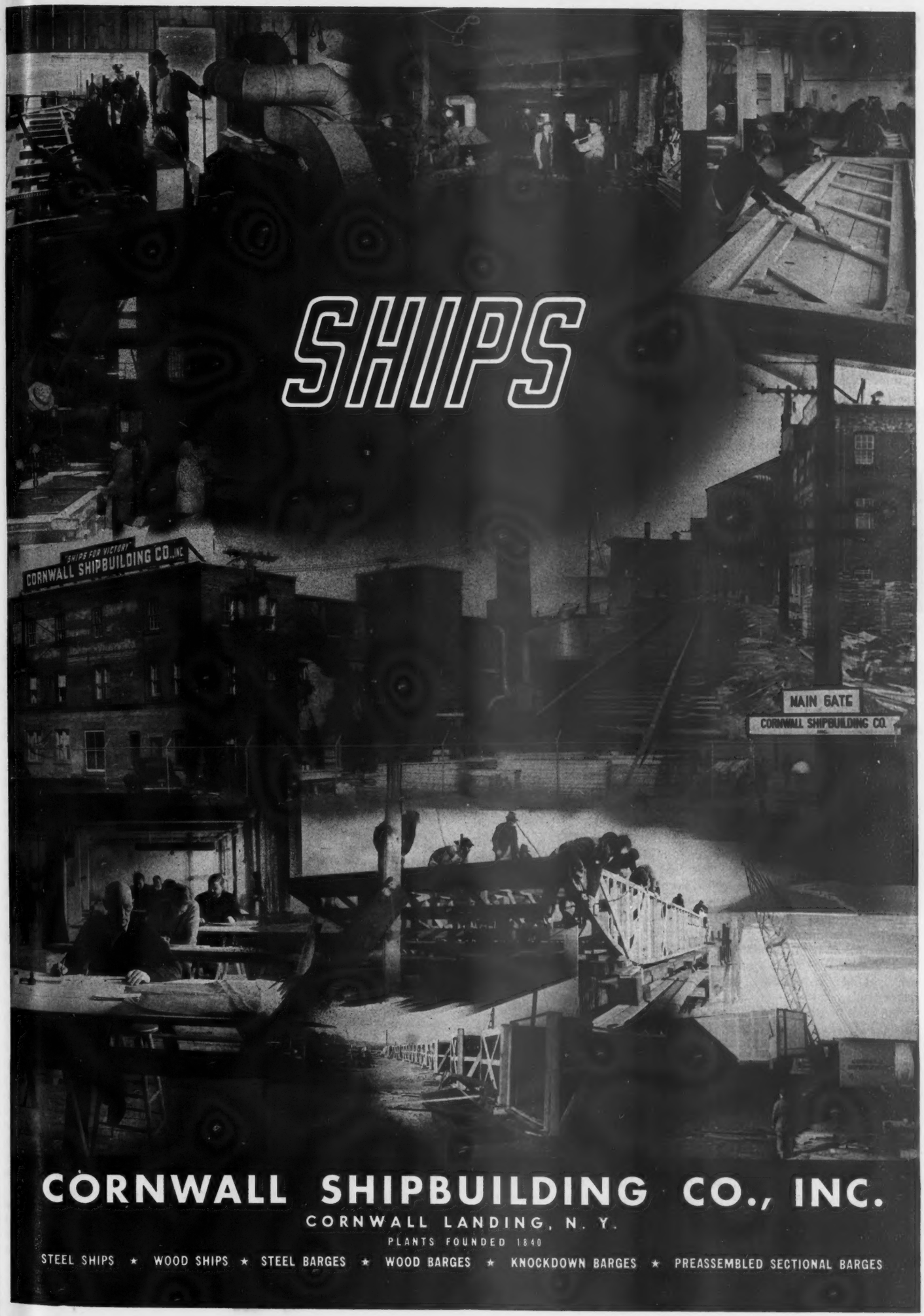

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Photo Courtesy Burger Boat Co.

• *RUGGED STAMINA*

Hundreds and hundreds of trim sub-chasers rolling down the ways from scores of yards carry Danforth Anchors. Tough and rugged, the little 150 lb. Danforth shown on the deck of this Burger SC-661 has what it takes . . . and it's EASY TO HANDLE!

Write for Folder with "Hints on Anchoring"

R. S. DANFORTH · 2121 Allston Way · Berkeley, Calif.

YACHT DESIGNING FOR THE AMATEUR

(Continued from page 48)

hard to drive. If she is too light, she will float too high and lack stability, needing additional ballast to bring her down to her lines. Next, she must have a form which is easy to drive and also have sufficient stability to stand up under her canvas in a good breeze. She should not have so much wetted surface that she will build up frictional resistance nor be so full bodied that she will pile up a heavy set of waves when under way.

Her sail area must be large enough to make her move in any sort of a breeze and be divided so that the largest sail is not too big to be handled by the normal crew and be laid out so that the sails are efficient for propulsion. The lateral plane must be enough in amount for the boat to go to windward well and its area so disposed that she will balance under all plain sail and handle properly when reefed down. If meant for offshore cruising, some attention must be paid to her probable behavior in a blow. She must have beam and ballast enough not to heel too much when it blows, yet not so much as to make her a quick, jerky roller. She must trim properly so that she sits on her designed lines, not down at either end. She must have freeboard enough to give a good range of stability and room enough below deck, yet not be so high out of water that her top weights will affect stability adversely.

She must be strong and built of durable materials but her construction should not be needlessly expensive nor should she carry around a lot of useless weight in extra heavy scantlings. Fastenings must be of the proper size, type and material, well driven, and seams must be properly caulked for watertightness. Ventilation is important, not only to the cabins for the comfort of all hands but to the various parts of her structure to discourage the start of dry rot. All openings in the hull must be watertight, and skylight and hatch framing must be stout enough to stand the shock of a sea. All parts of the hull which take extra stress must be well braced, fitted and fastened. Rigging must be strong and properly led, to hold the spars up to their work and to avoid chafe. Fittings, on deck and aloft, must be well designed, well made of suitable material and strongly fastened. Tanks, both water and fuel, must be of sufficient capacity, suitable material, well built and strongly braced. Piping must be led correctly, hung to allow for any expansion, and placed where it will not be subject to injury.

The cabin must be laid out to provide the desired accommodation without crowding, be well lighted and ventilated, and suitable to the use to which the boat is to be put. A layout which may be fine for an offshore cruiser might be unsuitable for a day sailer or overnight cruiser.

Finally, the question of looks must be considered and here is where the designer's innate or acquired artistry comes in. He must have good eye for proportion and balance of masses and should also know that some things which may look prominent on a drawing, which is all in one plane, are inconspicuous in the boat. A well proportioned doghouse, for instance, may stick up like a sore thumb on the plan but in the boat, being further from the observer's eye than the topsides and also of a different color, it will melt into the background. Freeboard is apt to appear much higher in the boat than on the plans and the ends shorten in amazing fashion. And the sheer line is extremely tricky if there are houses.

Floating Bodies in General

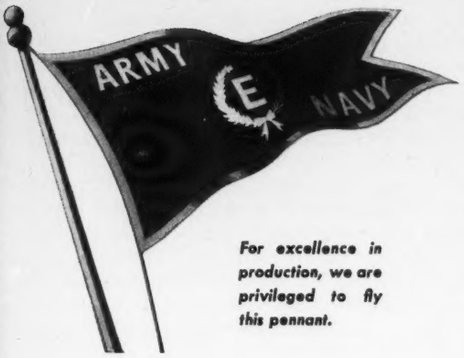
As Archimedes discovered some twenty-two hundred years ago, a floating body displaces its weight of the liquid in which it floats. Knowing the weight of the liquid and the weight of the body, we can tell whether or not it will float. If the total weight of the body is less than the weight of the liquid it displaces when entirely submerged, it will float with some of its bulk exposed. But in what position?

If the body is of uniform weight — homogeneous, that is — and is of such shape that any section through it made by the water line will be the same, it will float in any position with its axis horizontal. A sphere, for instance, will be at rest in any position. A cylinder will float on its side.

Now look at Fig. 8, which shows a cylinder weighing per cubic unit half the weight of the water in which it is floating. It will float with its water line among a diameter. Now the Center of Gravity (the point in which all its weight may be considered to be concentrated, hereafter called the CG) is evidently at its geometrical center G. But the center of the underwater part of the cylinder is at B. This is called the Center of Buoyancy (CB) and through it all the upward push of the supporting water may be thought to act. If the cylinder take an inclination, the CB will move to a new point at B′, directly below the CG and the cylinder will have no force acting on it to return it to its previous position. It is in neutral equilibrium.

But, instead of a cylinder, consider a square sectioned chunk of material (Fig. 9). It will float with the diagonal at the water line and the CG at G and the CB at B. Now, if it be given an inclination, the CG will remain at G but the CB will shift to B′ (Fig. 10) since the underbody has changed

Pilot house and fuel tanks made by Gerstein & Cooper for these 83′ Wheeler-built Coast Guard cutters, one of the classes of ships on which our products are used.



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Gerstein & Cooper Company, BOSTON, MASS.

its shape. The weight acts down through G but the upward thrust of the water through B′ instead of through B. Let these forces be represented by the lines Gg and B′b′. These forces, equal and acting in opposite directions though not through the same point, form what mathematicians call a "couple" tending to revolve the body in a counterclockwise direction — that is, to right it. The distance from Gg to B′b′ is known as the righting arm and the force (up or down) multiplied by this arm is the righting moment. Since any inclination will shift the CB out of the vertical line through the CG, forming a couple that will tend to right the body, the floating body is in stable equilibrium.

Fig. 11 shows a light pine box which floats well out of water. Its centers are at G and B. Fig. 12 shows how it will act when heeled. As the CB shifts to B′, well away from the vertical through G, it evidently has a large righting arm and righting moment. It will therefore be quite stiff, like a wide centerboard boat. But heel it much further, as in Fig. 13, and both righting arm and righting moment will decrease since the CB goes to B′. If heeled still further, the CB will be to the left of G and the box will capsize, as will the unballasted centerboard boat (Fig. 14).

Now let's ballast the box so that it floats on edge, as in Fig. 15. The CG will be low, at G, as the ballast is all in the bottom. A small inclination, as in Fig. 16, will move the CB to B′, a little to the right of the vertical line through G and the box will be in stable equilibrium although the righting arm is small and the righting moment not great. But heel the box still further, as in Fig. 17, and stability increases tremendously. In fact, there will be positive stability until the box is bottom up. That is why a narrow, heavy displacement boat may take an initial inclination easily but will get stiffer and stiffer as the rail goes down.

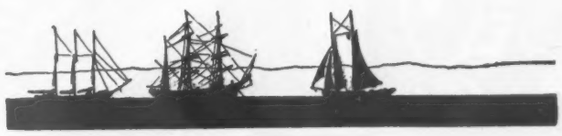
So much for the box form; let's see what will happen to a wedge. If homogeneous, the centers will be at G and B (Fig. 18). Upon heeling, (Fig. 19) the CG will stay at G but the CB will shift to B′, to the left of G, and the wedge will keep on heeling until it reaches a stable position. Fig. 20 shows it heeled slightly beyond this position. It will right itself. A ballasted wedge (Fig. 21) will act as in Fig. 22, gaining stability as it heels.

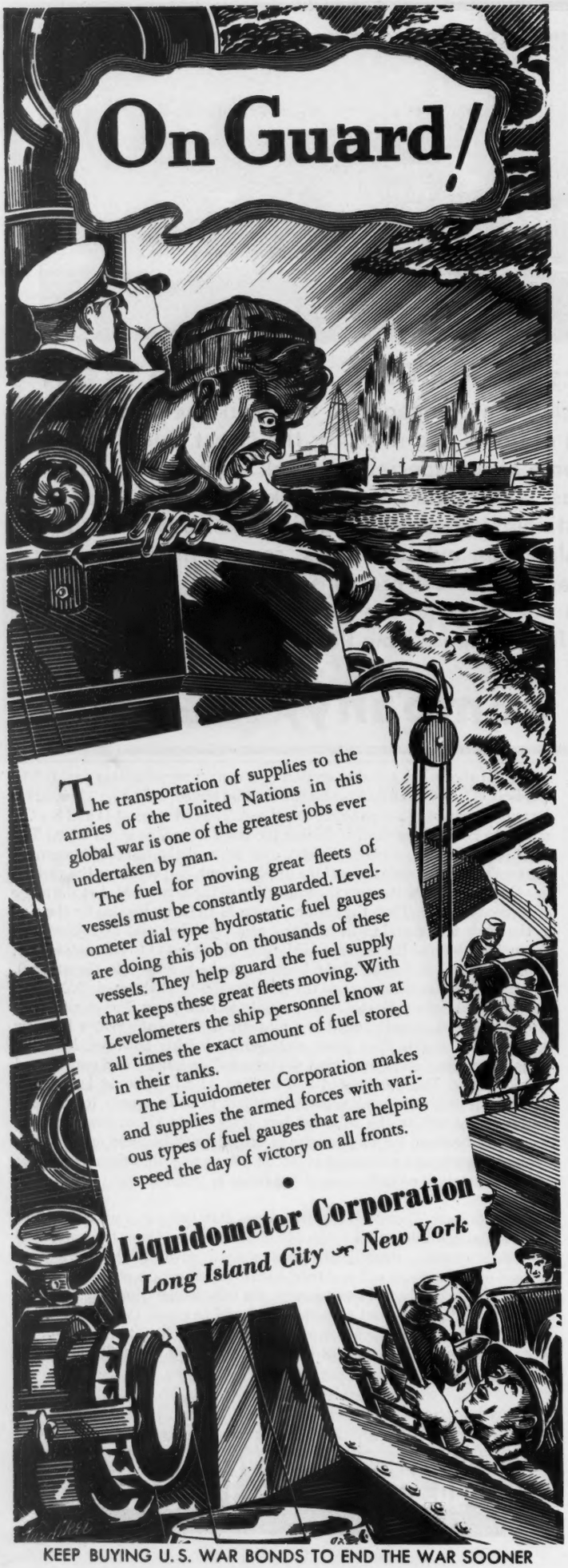
These primitive forms, though not exactly ship forms, yet indicate some of the problems of stability. The influence of ballast is seen to be great but form has a large part in making sure that the vessel will tend to remain upright when heeled by the pressure of the wind. In a boat, the centers act as they do in a box or wedge though locating them is not so simple.

Fig. 23 shows the midship section of a conventional sailing yacht. The CG is at G, the CB at B. Now let the boat be heeled, as in Fig. 24, whether by wind pressure or a rope to the masthead. The CG stays at G and the CB moves to B′. (The method of finding the point B′ will be given later.) The righting arm is Gg, g being directly over B′, and the righting moment is the product of this distance and the displacement. But continue the vertical line through B′ until it meets the center line of the boat at M. Let the angle of inclination be θ. Then the distance from M to G, multiplied by the sine of the angle θ, is equal to the righting arm Gg. The point M is known as the metacenter and the distance GM, from the CG at G to the metacenter, is the metacentric height of the boat when she is heeled to the angle θ. It is an indication of amount of the boat's stability at the angle θ. A large metacentric height indicates large stability at that angle. For small angles of heel, the metacentric height is a measure of the boat's power to carry sail at those angles. Too great metacentric height, however, indicates excessive stiffness and means that the boat will be uneasy in a seaway and a jerky roller. The unballasted box in Figs. 11 to 14 would have great metacentric height for small angles of heel but, as we have seen, its stability will vanish at 90°. In the ballasted box (Figs. 15 to 17), the metacentric height will be small for small angles of heel but will increase rapidly with the angle, reaching a maximum at 90°. It will be seen that the metacentric height alone gives no indication of the range of stability.

So far, we have discussed only transverse stability but a vessel also has longitudinal stability and a longitudinal metacenter. Upon these depends the change of trim, either by the head or stern, when weights are shifted forward or aft or when sail is carried hard. Also, the form of the boat may be such that, when heeled transversely, she will change trim longitudinally but in a well designed boat such change should be small. Full quarters will depress the bow when heeled in a hard breeze; the longitudinal stability depends largely on the shape of the water lines near the ends and in the overhangs.

(To be continued)

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KEEP BUYING U. S. WAR BONDS TO END THE WAR SOONER

GET 'ER OVERBOARD

(Continued from page 20)

since that date; however, if such place of residence and such boat were, on November 22, 1942, within the limitation area, no such ration shall be issued unless such boat has been continuously away from the regular place of residence of the person entitled to the use thereof since August 22, 1942;

(3) To move such boat to a place of storage upon repossession or upon seizure by a government authority;

(4) To deliver such boat after a bona fide sale thereof, or pursuant to a bona fide lease of ninety days;

(5) To move such vehicle or boat from a sales establishment or place of storage to another sales establishment or place of storage; however, no ration in excess of five gallons per month per boat shall be granted for such purpose.

What it all boils down to is that, as of a date in March or April as yet unannounced (subject to rulings which may subsequently be announced by the Government), it is predicted that boats may use gas for pleasure purposes in all of the "gas shortage states" as previously specified. No limitations, other than specified ration allowances, will be imposed upon essential work boats and commercial craft, on boats in the Coast Guard Auxiliary (when on duty), or on yacht club tenders and launches, in any areas. Gas may be obtained and used upon much the same basis as last year and, in view of the fact that units are for three-month periods rather than six, the amount of gas received is identical. It has been implied, however, that the value of coupons may be somewhat less than last year.

But here is a note of cheer for all yachtsmen. The OPA has advised YACHTING that, whereas nothing can be said officially at this time, they are in hopes that the gas situation may be expected to improve at such a rate that limitations now imposed may be substantially eased as the season progresses.

According to the Marine Inspection Section of the U. S. Coast Guard, those clauses in the Motor Boat Regulations Act of 1940, which were to go into effect on April 25th, 1943, and which require new equipment for motor boats, are to be held in abeyance until the end of the War. The decision was reached at Coast Guard Headquarters in Washington in view of the fact that necessary war materials make it virtually impossible for owners of motor boats to obtain several of the specified items. In place of the new lights, whistles, fire extinguishers and life preserving equipment required by the Act, motor boat owners are allowed to retain existing equipment on their boats providing that they come up to previously announced specifications. The other requirements of the Act, that is those which do not involve the installation of new equipment, will remain in effect or become effective on April 25th, 1943.

Next, your Coast Guard identification card. At the present writing, this does not have to be renewed; if it does, you will be so informed. If you haven't got one we suggest that you make tracks to the nearest Coast Guard Captain of the Port, as each person on board — or anywhere near the waterfront, for that matter — must have this all-important card in his or her possession.

Don't forget the matter of your Federal Boat Use Stamp, which you must obtain before the boat can be launched. All details regarding these stamps, together with the rate per foot of over all length, may be obtained from your local Collector of Internal Revenue.

Last, but far from least, is your license to operate. Generally speaking, these licenses contain the same general provisions as last year but, due to varying regulations in different parts of the country, it is suggested that you check with your nearest Coast Guard office to ascertain what limitations are in force in your particular area. Presumably your license was revoked late in the autumn, and a month or so ago you probably received a new application to be filled out. This license bears the heading "APPLICATION FOR LICENSE TO OPERATE VESSEL IN TERRITORIAL WATERS OF THE UNITED STATES OR TO DEPART THEREFROM," and is not to be confused with your Certificate of Award or Document. Some weeks after the filing of your new application, you may expect a notice that your new license has been approved. It is then necessary for you to pick it up in person; in doing so, remember to bring your old one with you, as you can't get one without the other. Upon examination, you will find the new and the old are pretty much the same (save for special conditions as above noted), and that all of the grim predictions from which you have been suffering throughout the winter months are just about 100 per cent wrong!

So there you are, skipper. The next move is yours, and don't say we didn't tell you!

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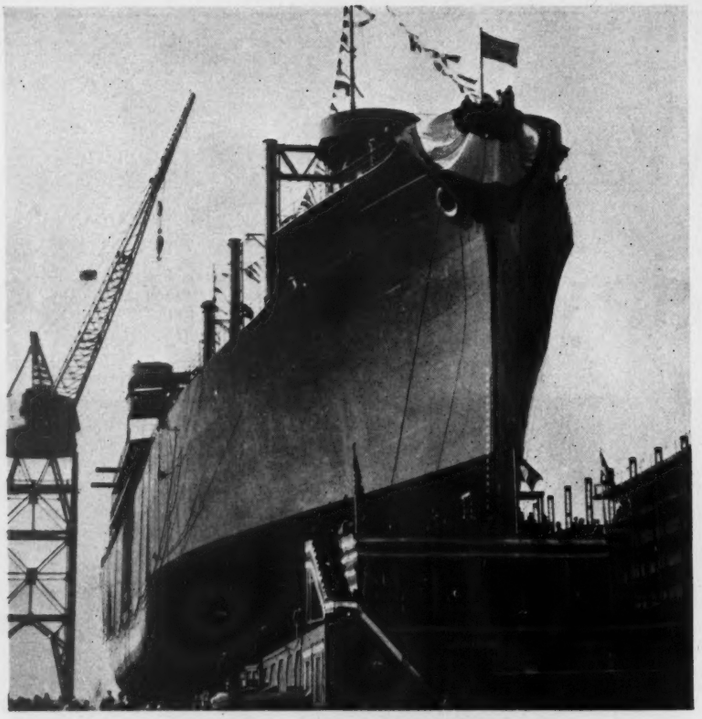

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PANISH controls are serving on the sea frontiers now — and they will be available to you, so that your boat too can have split-second maneuverability — after VICTORY is won.

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OF PRODUCT AND PRODUCTION
WE HAVE BEEN HONORED WITH
THE ARMY-NAVY "E" AWARD

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PANISH CONTROLS, BRIDGEPORT, CONN.

LIVING ON BOARD

(Continued from page 23)

With light, cooking fuel and water provided, the only remaining necessity to assure complete independence is, paradoxical as it may seem, your link with the shore. A stout dry dink that can be used for taxi service for hauling and carrying, for fishing, and for just plain fun is as necessary as a car used to be for suburban dwellers. A good dink is always important but, when the big boat is not to be moved much, if at all, and when tender service is sketchy or out completely, the dinghy is going to take on importance out of all proportion to her size. So give a few extra thoughts and put in a few extra hours of work on the dink. Maybe you want to put a sail on her. This is the time to start the job. Maybe you simply want to fill the seams and to plug up the pin holes through which the water floods in. It is a little thing like this that will have a big meaning for you this summer.

THE MONTH IN YACHTING

(Continued from page 55)

thousands of miles by canoe in eastern Canada and has also cruised most of the rivers of the Middle West, and the East from Maine to Florida. In addition to his canoeing activities, he has always been affiliated with yachting, having owned two 40-foot yawls, one on Lake Michigan and one on Long Island Sound.

Mr. Tyson is the author of "Sailing Canoes," which gives a history of the sport and outlines its restrictions and rules.

"YACHTING" LOSES ANOTHER STAFF MEMBER

▶ It is with deep regret that we have to report the death on March 17th of Miss Anne Landau, for fifteen years a valued member of YACHTING's staff. As art editor in charge of makeup, Miss Landau was responsible for the typography and the pictorial layout which has marked YACHTING as one of the leading magazines artistically in the class field.

Anne Landau went to Reed College, Portland, Oregon, but came East sometime after her graduation and joined YACHTING's staff, where she remained until her death, which followed a lingering illness. She was well known to the many artists and authors who have contributed to the magazine during the years she was here. She will be missed, and the work she did will be hard to match.

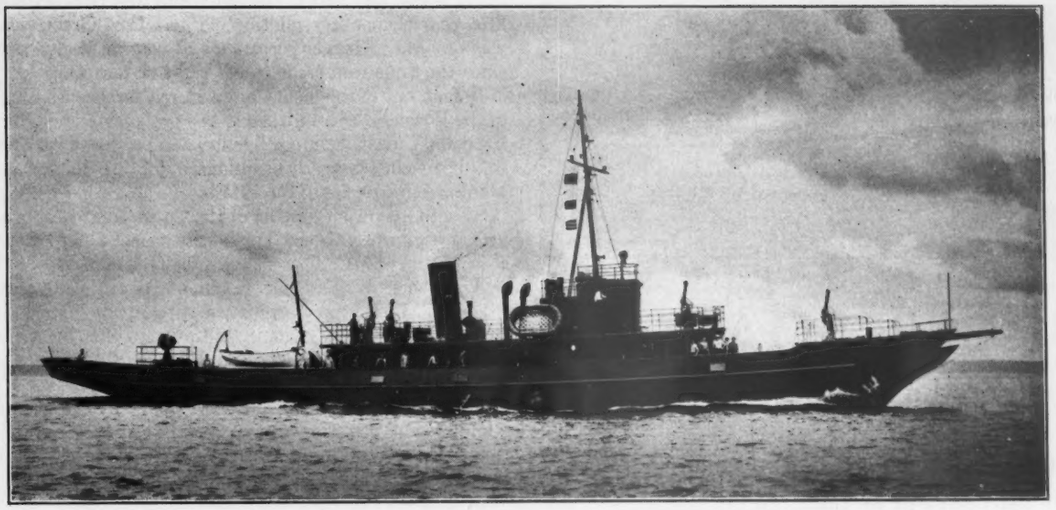
J. PIERPONT MORGAN

▶ In the death of J. P. Morgan in Florida on March 13th, yachting has lost one of its most ardent supporters and a figure of international prominence in the yachting world. Yet, throughout his life, Mr. Morgan was so modest and averse to publicity that his contributions to the sport he loved were unknown to many who knew of him chiefly as the owner of *Corsair* and an ex-Commodore of the New York Yacht Club, an office which he filled from 1919 to 1921.

While throughout much of his yachting career he owned and used the two famous *Corsairs*, he was extremely fond of sail and was a clever helmsman and an ardent racing sailor. He owned one of the famous N.Y.Y.C. "30's", the *Phryne*, for a number of years and raced her in that hard sailing class.

However, it is largely through the string of *Corsairs* that Mr. Morgan, and his father before him, were best known as yachtsmen. With all of these vessels the Morgans have been most generous and public spirited. The first of the line, built in 1880, was the only one sold, and that to make way for the *Corsair II*, which the elder Morgan turned over to the U. S. Navy in 1898. She became the *Gloucester* and played a gallant part in the battle of Santiago. She was followed in 1899 by another *Corsair*, built at Newburgh from designs by J. Beavor Webb. She came to J. P. Morgan on the death of his father, and she also was loaned to the U. S. Navy in World War I and saw strenuous service in European waters. She was given by Mr. Morgan to the Coast and Geodetic Survey in 1930, and renamed *Oceanographer;* she is still doing duty in Coast Survey work. In 1930, she was replaced by the last *Corsair*, No. 4 in the series, built at Bath from designs by Henry J. Gielow. In 1940, she followed the paths of her predecessors and Mr. Morgan gave her to the British soon after the outbreak of the present war, and long before we were involved ourselves.

Always public spirited, always ready to help in any cause that would promote yachting, Mr. Morgan has been a benefactor in many ways to the New York Yacht Club and has been a member of several syndicates for the defense of the America's Cup. His passing is a loss to yachting as it was in the past, and as it will be in the future.



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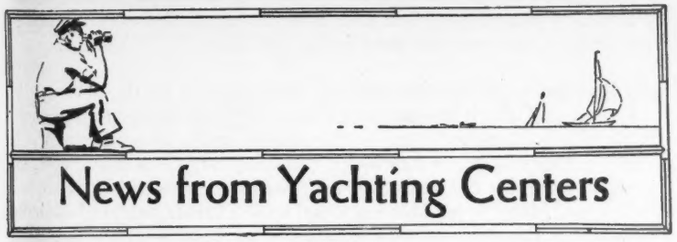


News from Yachting Centers

FROM SAN FRANCISCO BAY

By Jesse L. Carr, M.D.

▶ The Aeolian Y.C., long established and active on San Francisco Bay since 1906, is meeting the challenge of 1943 by issuing a new monthly bulletin with an extremely attractive format and enlarged news columns. It reports 55 members in the Service, a large chest of war bonds in the treasury, an active social season in prospect for 1943 and the following officers recently elected for the coming year: Commodore, George A. Smith; vice commodore, Keith Otzen; port captain, Chester F. Hacke; secretary, Thomas P. Bolger; financial secretary, Richard S. Flaherty; treasurer, Charles Robie. The club members met March 12th to discuss both the social and racing programs for the coming year.

▶ In other clubs about the Bay, social activities have a definite Service coloring at this time. Outstanding in many recent events at the St. Francis Y.C. is the reception which Commodore Sydney W. Ford gave for his daughter Peggy, following her marriage to Ensign E. W. Hampton. Following this event by only a week, Captain Haight, of the San Francisco net patrol, celebrated his own wedding with a cocktail party at the same club. J. E. Stevenot, now a full colonel in the Army, was back at the St. Francis Y. C. for a short period on his way through from General MacArthur's headquarters to Washington. Fred Hinckley also returned for a day at the club from active duty in the air force. On the outgoing side of the ledger is Dr. Perry Bonar who departed some unknown time in the past weeks for service somewhere in the Pacific.

▶ With the upper reaches of the tributary waters of San Francisco Bay still open to unrestricted sailing, the Delta Y. C., of Stockton, anticipates an extremely active season and announces the following officers recently elected for 1943: Commodore, Earl Gossett; vice commodore, Dr. Stanley F. Burson; rear commodore, George Beauregard; secretary-treasurer, Leo Coffenberry.

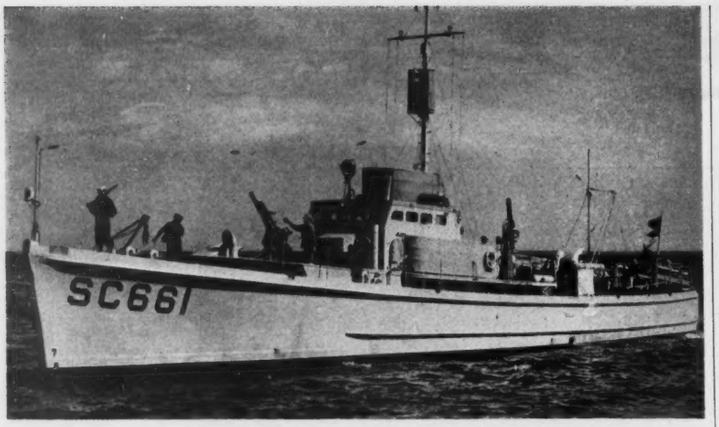
The directors are: Vernon Rodden, Dr. C. L. Daingerfield, Ed de Candia, R. J. Knox, Edgar Montague, Roy Stephens, C. B. Clawson, B. E. Tobey, Jr., Harold France, Al Rider.

▶ At the other end of the Bay, the Encinal Y. C. has announced its list of officers, elected at a recent meeting of the club in Alameda. The list is as follows: President, Douglas Clerk; vice president, Chester G. Jordan; secretary, Samuel L. Barker; commodore, C. Paxton Davis; vice commodore, Dorward Henderson.

▶ The annual Tai Fung (Big Wind East of the Rocky Mountains) has come and gone during the past month on San Francisco Bay. In two episodes of extremely high wind, a construction barge was smashed off Hunter's Point, numerous boats were found dragging by both the yacht club caretakers and Coast Guard, and nearly all of the boat covers were ripped off boats in the Municipal Yacht Harbor. To date, there has been no record, however, of groundings or losses as is so common each winter when the southeasterlies begin. There have been reports of boats grounding, however, in water charted as reasonably deep in the South Bay. During the last storms, waves were seen to be running in peculiar and unorthodox directions. Investigating this phenomenon within the last short period, it has been found that tremendous excavations and filling preparatory to further industrial development and shipyard construction along the west coast of the South Bay has, by the sheer weight of the fill, thrown massive volumes of the bottom of the Bay up in true "mud waves," with the establishment of innumerable new shoals, shallows and flats below Mission Rock.

▶ The Healy Tibbetts Construction Co. announces completion of the new dock and fill off the new Hunter Point's Navy Yard. This project is now assuming a finished look and is already in partial operation as probably the biggest naval construction scheme on the West Coast.

▶ Lieut. John McCrae writes from Hawaii that the war has really started for naval men stationed there; food rationing has begun in Honolulu.



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NARRAGANSETT BAY GOSSIP

By Jeff Davis (Old Doc)

▶ The most active organization in this neck of woods just now is the Narragansett Bay Power Squadron, and when I say active, I mean active. And I might add that in the last group that passed the examinations in the first year elementary piloting class at East Greenwich last month, there was probably a bigger percentage of veteran yachtsmen than in any other since the Squadron came to life eight or ten years ago.

In fact, one of the men, Commodore Clarence M. Dunbar, was a member of the Power Squadron when it was first started here in 1914. At the end of the course, when "Dunnie" found and produced his certificate, he was told that he needn't take any examination for he belonged anyway. Commodore Dunbar is the owner of the 50′ Elco *Advance*, one of the charter members of the East Greenwich Flotilla of the Coast Guard Auxiliary, and among the first to sign up with the Temporary Coast Guard Reserve.

▶ Dr. George W. VanBenschoten, owner of the 40′ cruiser *Sea Dream IV;* Sturgis C. Rice, who does his yachting in the little 20′ *Sindbad;* Frank G. Prue, whose *Bluewite* was turned over to the Coast Guard and who now owns the 72′ *Flohema II;* and Edward P. Jennison, whose 38′ cruiser *Strebor* was the first Rhode Island boat turned over to the Coast Guard, have all been active yachtsmen ever since I have had any connection with Rhode Island yachting. Quite a few more of them didn't need the instruction to make them competent to navigate their boats but they wanted it, so took it anyway. That Power Squadron flag carries considerable prestige in Narragansett Bay.

This was the first winter that the second year courses have been given anywhere outside of Providence but, in addition to the examination at Providence, second year course examinations were planned at both Newport and Fall River about the last of March.

The squadron planned a four lecture course in motor mechanics which began March 21st, and will start a longer course in elementary seamanship early this month. If the school departments will coöperate to the extent of providing a meeting place, the Squadron will open the course to as many high school boys as the meeting place will accommodate in addition to the squadron members themselves, provided the high school boys supply their own books and agree to make good use of the knowledge they get by signing up with the Navy, Coast Guard, Amphibians or Seabees. The general feeling among the squadron members seems to be that there would be nothing gained by pumping nautical knowledge into boys who were destined to drive tanks or man machine guns in the land forces.

▶ In the other yachting organizations, the activity is nearly all social. At the Edgewood Y. C., it has taken the form of dinners, dances, for the members and similar shindigs for and by the juniors; at the Rhode Island Y. C., there's an informal dinner followed by dancing every Saturday night. Of course, the select few old timers who for years have met weekly for a session at poker, still gather around the big round table Thursday nights, but that's a club within the club and cannot properly be called a club affair. Both Edgewood and Rhode Island clubs, as well as the Pawtuxet Athletic Club — which has more yacht owning members than many small yacht clubs — are fortunate in being located close to public transportation lines.

▶ Most of the yacht yards are busy but not on yacht work. Williams and Manchester, at Newport, get a good part of the fishing fleet to service and the Newport Ship Yard; Herreshoff's, at Bristol; Alder's, at Warren; Perkins and Vaughan, at Wickford; and Harris and Parsons, at East Greenwich, are wire fenced and plastered with U. S. Navy signs. Saunders, at Wickford, catches considerable servicing of work boats. Dyer, at the Anchorage at Warren, has a busy shop with a variety of small government stuff that he won't talk about. There's a little start on yacht preparations for spring at Shaws, at Riverside; Wardwell's, at Poppasquash; Thorsens, at Edgewood; and Wests, at Riverside. Lemos, at Riverside, has a 70′ dragger under way for a Boston fishing firm.

One shipyard has changed hands. Started about a year ago by the Rheem Co. to build 32 of the Liberty ships, the company had launched, finished and delivered one, the *William Coddington*, and had launched a second vessel when the Maritime Commission took the plant and presumably the contract away from Rheem and turned it over to a new company, the Walsh, Kaiser Co. It has been reported that the new company will finish four or five of the Liberties on which work has been started, and then switch to building the new type ship designed for convoy duty to relieve the destroyers for other duty. The only reason for the change which has been made public so far is "extravagance and inefficiency" of the Rheem management. Judged by speeches by the governor, commissioner of labor and mayor at a dinner given to the younger Rheem who has been manager, the change is not popular with them. A member of the Rhode Island Senate has introduced a bill demanding an investigation.

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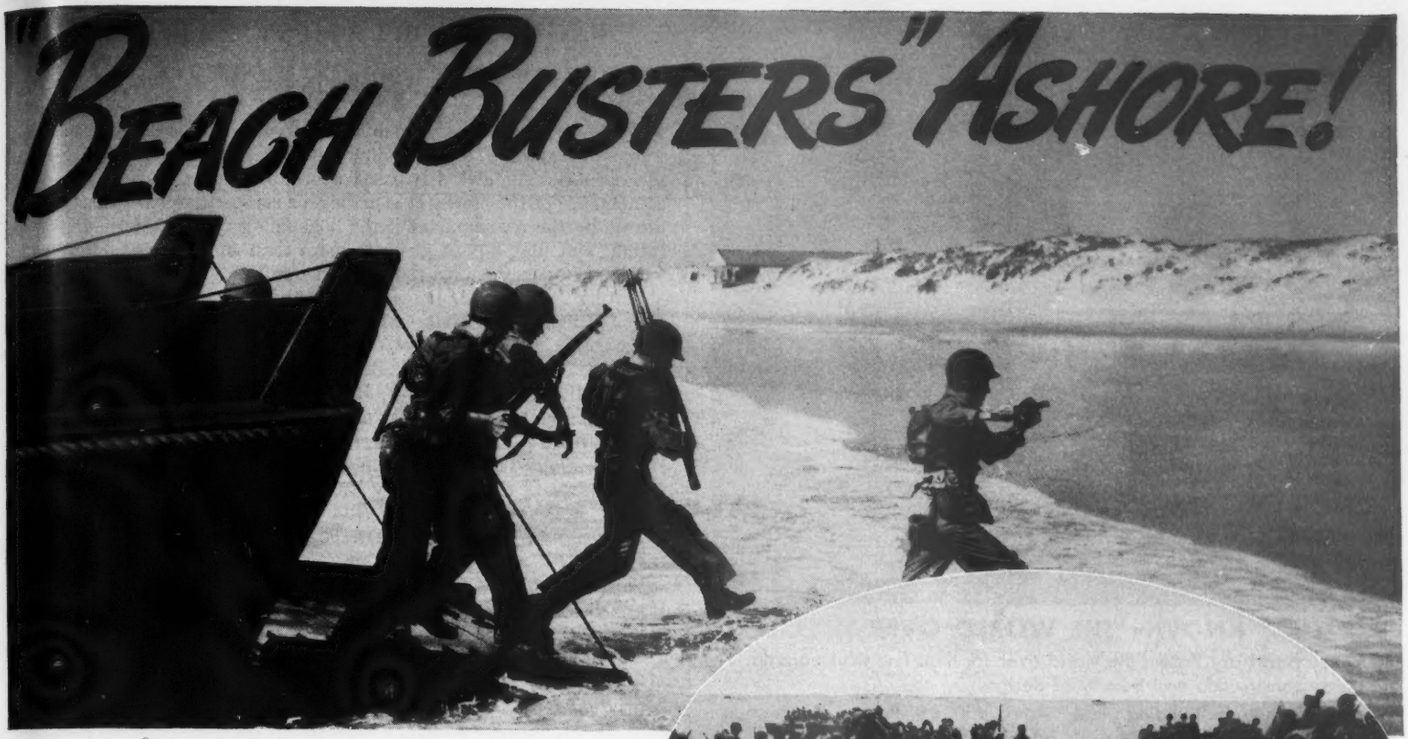

RUDY ARNOLD PHOTO

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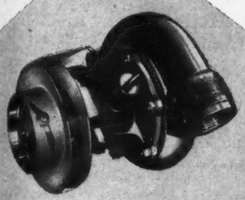

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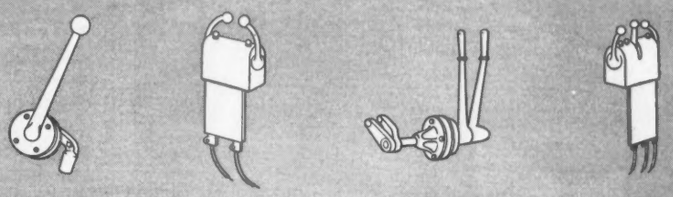

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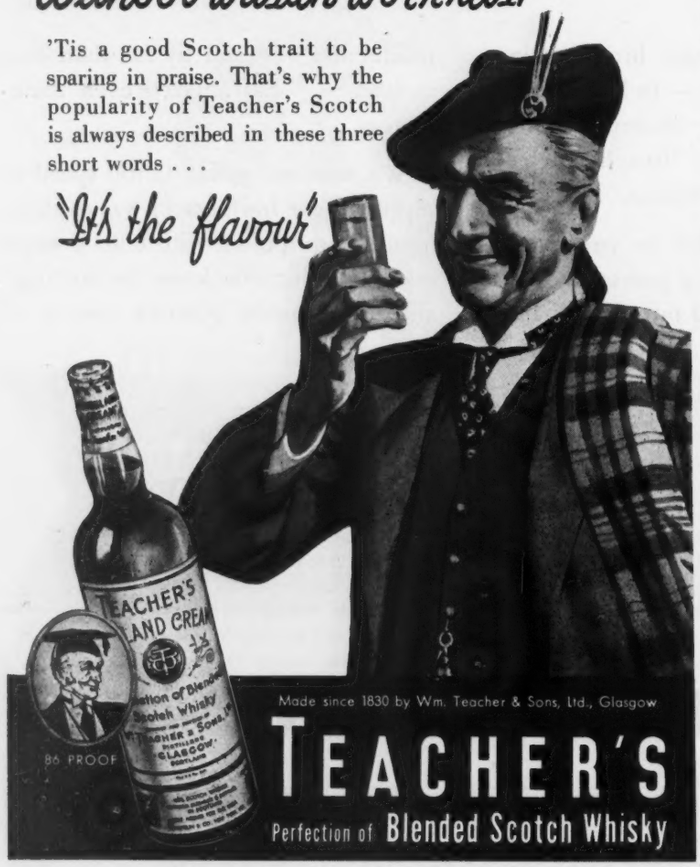

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PACIFIC NORTHWEST CAT'S-PAWS

By Ray Krantz

▶ Forty-four yachts registered in various Pacific Northwest yacht clubs were awarded the U. S. Coast Guard merit designation of "efficiency," late in February. The award is based upon appearance, general upkeep and competence of the crews. It is made on a competitive basis; may be withdrawn by the commandant if the boat fails to merit continuance of the rating; and may not be given to more than 40 per cent of the flotilla's vessels. Winners included the following craft:

Flotilla 24: *Peggy O*, J. C. Bird; *Victoria*, George Stroble; *Lady Grace*, Ralph C. James, Jr.; *Molly O*, E. G. Watson; Lawrence Calvert's *Starlight; Sparks*, J. D. Sparks; *Sea Rest*, O. D. Fisher; *Alice*, Dr. A. J. Bowles; *Aldor*, D. M. Salsbury; *Rowena*, R. R. Anger; *Isla May*, C. B. Ward; *Enlim*, George Milne; Jack W. Power, *Maidie II;* and Allen B. Engle's *Neoga.*

Flotilla 21: *Driftwood*, L. P. Heath; *Warrior*, S. T. Viggers; *Hilma*, C. A. Gibson; *Bee Jay*, H. B. Snively; *Olive Bee*, A. H. Berg; *Baker Boy*, C. L. Hallberg; *Gypsy*, H. Schwartz; and *Chickawa*, H. L. Salvesen.

Flotilla 23, of the Queen City Y.C.: *Patrus II*, Russell Rathbone; *Halcyon*, H. E. Watson; *Tunante*, J. T. Foster; *Sarna*, E. N. Stone; *Shamrock*, W. A. Bronson; *Shangri-La*, Dr. E. C. Guyer; and *Shirley Marie II*, Russell E. Fleischer.

Flotilla 26, Mercer Island Y.C.: *Harmony*, C. M. Anderson; *Gwendoline*, H. W. Baker; and *Dagmar*, A. E. Raketty.

Flotilla 28, Seattle Y.C.: *Kajook*, C. E. Cole; and *Carolyn*, Earl Cox.

Flotilla 29: *Sun Ray*, Louis Chichetti; and *Sea Legs*, L. K. Jaeger.

Port Angeles Y.C.: *Pixie*, Robert Bundy; and *Rogue*, L. L. Larson.

Pend d'Oreille Lake, Idaho: D. R. Riegel's *R-77 II; Merne*, S. T. Wingard; H. M. Grosse's cruiser; *Chubb*, G. M. Rasque; *Hazel B.*, F. J. Burtscher; and *Ha Pike*, L. G. Moon.

▶ A new 126′ twin screw Diesel wooden tug was launched on February 27th by the Bryn Mawr shipyard of Barbee Marine Yards, Inc. The new tug, first of a series in the Pacific Northwest from designs by L. H. Coolidge for the marine design division of the U. S. Army at Seattle, was built on the shores of Lake Washington.

▶ *YMS-290*, 135′ mine sweeper, was launched on February 27th at the Lake Union plant of Associated Shipbuilders, Seattle.

▶ Two Ballard shipyards launched *YMS* mine sweepers in February. *YMS-337* went overboard on February 20th at Seattle Shipbuilding and Drydocking Corp. On February 23rd, Ballard Marine Railways launched an identical vessel, *YMS-329.*

YMS-246 hit the water at Tacoma March 11th, at Tacoma Boat Building Co.

At North Bend, Oregon, on March 6th, Kruse and Banks launched their sixth YMS wooden mine sweeper and the Hillstrom Brothers' shipyard sent the first of several "P" type 104′ Army aircraft rescue vessels into the waters of Coos Bay.

▶ On February 27th Associated Shipbuilders' Harbor Island plant, Seattle, launched two steel mine sweepers originally intended for the British Navy. Uncle Sam reallocated the vessels for his own Navy, and named them *Spear* and *Triumph.*

▶ Markey Machinery Co., Seattle, long associated with the Pacific Coast marine industry, received the Army-Navy "E" award on February 12th.

▶ The Seattle Y.C.'s 1943 schedule shows a shakedown cruise for power yachts on April 10th on Lake Washington with a rendezvous and overnight stop at Meydenbauer Bay. Next event falls on May 2nd when the opening day regatta for both sail and power boats will be held.

▶ *Cat's-paws:* Prothero and McDonald, Seattle boatbuilders, early in March were starting construction on a group of 52′ twin tunnel river tugs with square noses, for the Army; twin Chrysler Royal Eights with 3.17:1 reductions will be the power plants of the Edwin Monk designed craft. . . . The famous four mast sailing schooner *C. S. Holmes*, of Arctic trading fame, is now a barge for the Army. . . . The Martinsen Shipyards, Anacortes, has been acquired by Milton P. Roumm, of Seattle. . . . O. H. Freeman, of Fremont Boat Market, Seattle, has sold the 36′ Blanchard cruiser *Patheja* with Six-75 Universal engine to Dr. Otto P. Strizek, Seattle; the former owner was Fred Spencer. . . . Freeman also has bought for his own operation the 50′ tug *Ruth* from the Pacific Fir Co.; he will install a Chrysler Royal Eight with 4.5:1 reduction gear in her. . . .The *William Crawford*, 50′ shallow draft tug which operated in the logging trade on the Pysht River near Port Angeles, has been sold by the Merrill-Ring logging interests through Freeman to Brown and Anderson, tugboat operators of

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Port Townsend. . . . Jensen Motor Boat Corp., Seattle, has launched four 50′ patrol boats for the Coast Guard, and work is proceeding on a group of 36′ tunnel stern tugs for the Army, and also three 28′ fishing boats for Kodiak Fisheries. . . . At the Blanchard shipyard, Seattle, work is going forward on an order for 45′ Navy picket boats. . . . Vic Franck's Boat Co., Seattle, is building 40′ motor-sailers for the Army; five were launched by the middle of March. . . . Ray Butler reports his Washington Boat Works yard, Seattle, will launch the first of a series of 45′ Navy crash boats early in April. . . . Roy Corbett, of Marina Mart, Seattle, has sold a 19′ Century utility boat with Gray Six-103 to F. S. Lang, Seattle. . . . Grandy Boat Co., Seattle, is finishing up four 36′ open type shore boats for eventual use in Alberta, Canada, for the Betchell-Price-Callahan Co., of San Francisco; power will be Chrysler Crowns with 2:1 reduction gears. . . . Olson and Winge Marine Works, Seattle, has launched four 50′ patrol boats for the Coast Guard. . . . Grandy Boat Co. has delivered seven 26′ drill boats for the Maritime Commission. This yard's order for 36′ tunnel stern river type tugs has been doubled by the Army. . . . Jerry Bryant's shipyard, on Portage Bay, Seattle, is being remodeled to provide 6000 square feet of additional floor space which will allow building boats up to 65′; work at this yard on a number of "MT" Class 26′ mine yawls for the Army is proceeding swiftly, and good progress on a series of 40′ motor-sailers for military use is being made. . . . Walter Phelps, Jr., Seattle, has bought a new Albatross sloop, 22′ 8″, from Roy Corbett, of Marina Mart, Seattle; she is a Phil Rhodes design of sloop rig, built by the South Coast Co., Newport Beach, Calif.

LAKE ONTARIO NEWS

By W. Peck Farley

▶ Our Sodus Bay Y.C. correspondent, Lawrence Morley, submits the following:

"The sun is high and sailors' hopes are stirring. It's the yearly mobilization of aspirations and desires to finger a sensitive tiller and cock a weatherly eye at a masthead pennant. The finest tribute to a sailor is recognition of this continuous longing; this hunger, this thirst for the nearness of wind, wave, and canvas, and it is this spirit that has carried the sport down through the years to its present popularity. The honest to goodness sailors will 'keep 'em sailing' through the uphill grind in these lean years and the Sodus Bay Y.C. intends to take its place in keeping the sport active."

▶ Bob Gordon, former vice commodore of the Rochester Y.C., has re-signed and Johnny Heinrich moves up from rear commodore to vice and Frank McGee is now rear commodore.

Earl Snyder has been appointed Fleet Captain of the Racing Division and Harold Field of the Cruising Division.

Six more R.Y.C. men have joined the ever-increasing roster of members in service; Philip Enders, Richard Angle, John Buckley, William Hodge, "Jerry" Castle and James Schleyer.

At a recent meeting of the sailing committee, it was decided to "freeze" all trophies at R.Y.C. for the duration although the various classes will compete in scheduled races. The Star Class will have two series, a Saturday and a Sunday. The World's Championship Series will be part of the Sunday Series and the Club Championship Series will be an elimination contest over the Labor Day week-end.

▶ The Rochester Boat Works, adjacent to the R.Y.C., is full of activity these days as "Iggie" McFarlin, former light canvas man in *Conewago*, is building several picket boats for the Navy.

▶ Officers of the Rochester Coast Guard Auxiliary for the current season are: Commander, Harold Field; vice commander, Victor Rayment; junior commander, Paul Tchinnis; secretary, J. Webb L. Sheehy. Webb is also vice captain for the Rochester District.

▶ Walter Todd has been recently appointed chairman of the Rochester Area committee promoting the course in seamanship in the public schools. This area extends from Watertown to Batavia and south to the state line. Bill Barrows, Bill Nevin, Ritter Shumway, Harold Field, Dan Beach and Dave Bellamy are on the committee and will work with representatives of school boards in getting this project under way.

The purpose of this Seamanship Training Corps is to give practical training to boys of high school age, to prepare those with a preference for the sea to enter the service with a background of a basic knowledge.

It will include such subjects as Rules of the Road, Small Boat Handling, Theory of Sailing; Simple Piloting, Safety at Sea and other fundamentals.

▶ And then there was the girl who said, when she heard there were to be 500 whaleboats at Sampson Naval Base on Seneca Lake: "Why you couldn't begin to get that many New Bedford schooners on Seneca Lake—and how would they get there?"

Rosenfeld photo

Robert S. Erskine's "Marrob II," top boat for 1942 in the Long Island Sound Coastwise Cruiser Class. She was designed by John G. Alden

LONG ISLAND SOUNDINGS

By Starboard Tack

▶ At the March meeting of the Y.R.A. of Long Island Sound, held at the New York Y.C. on March 31st, the Executive Committee recommended to the delegates that the usual schedule of championship races be sailed during the 1943 season. The proposal calls for twenty-one dates, beginning on May 29th and winding up on September 26th. In the spirit of the times, a majority of the dates fall on Sunday; similarly, it is anticipated that the races will be sailed on last year's shallow triangle course — which gives the start and finish off Larchmont — thereby staying clear of the traffic in the steamship channel. The schedule also includes a few open dates and, if racing interest continues at its present high peak, they will be snapped up in short order.

▶ The Junior Y.R.A. of L.I.S. also held its semiannual meeting in the latter part of March. There the so-called "Junior Program" — consisting of the Junior Championship races, the Midget Championship races and the Annual Regatta (which is usually held during Larchmont Race Week) — came under lengthy discussion. As yet, it is too early to announce the delegates' decision but it is expected that every effort will be made to give the Juniors an active racing season. The prospect of Coast Guard Auxiliary vessels serving as committee and crash boats for the younger skippers should do much to soften the fears of their more cautious seniors.

▶ At a meeting of the Coastwise Cruiser Class held early in the year, Robert S. Erskine was chosen president and Thomas H. Closs was elected secretary-treasurer. Plans for the coming year were outlined in impressive detail. . . . The Annual Star Smoker for the Atlantic Coast was held at the Advertising Club, New York, late in February. There were members present from practically all fleets from Boston to Baltimore. . . . The Yachting Department of the New York A.C. staged a monstrous Saint Patrick's party at the New York clubhouse on March 13th. Sir Thomas Lipton would have cheered at the signatures which appeared on the invitation. They were "Albert Finnegan O'Jenkins, Commodore" and "Frank Hennessy McDimmick, Chairman, Entertainment Committee."

▶ The North River Power Squadron, which makes its rendezvous at the Downtown Athletic Club, New York, initiated its new seamanship course on Tuesday, March 16th. Meetings are held each Tuesday at 7:00 p.m. and the class will continue until May 25th. "Skipper" Smith, Commander Avery and Lieutenants Each, Brown and Flemming are the instructors. . . . Captain W. M. Troll, USCG District Engineer of the Third Naval District, is in urgent need of the following equipment:

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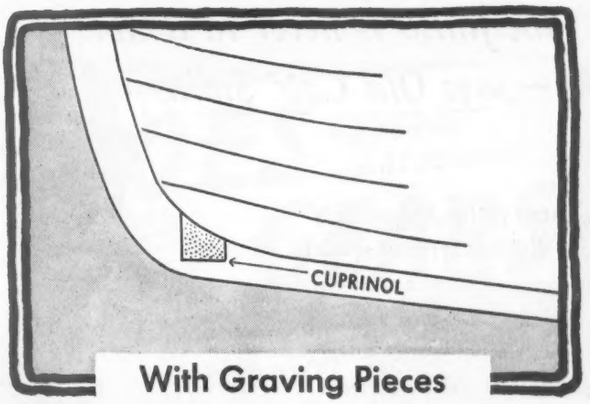

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Any Long Island Sound yachtsman who has, for disposal, any of the above listed items, is urged to make contact with the National Association of Engine and Boat Manufacturers, 420 Lexington Ave., New York. . . . As of the present date, and until further notice, all H.O., B.A., C. & G.S. charts and publications will be sold through the Port Director's Office by the Hydrographic Distributing Office (Room 1302, 17 Battery Place, New York. Telephone, Bowling Green 9–6220, Ext. 92). Pilot charts, Notices to Mariners, H.O. Bulletins, Daily Memoranda and other hydrographic information will continue to be issued from the Branch Hydrographic Office, 17 State St., New York, as before.

LAKE MICHIGAN BREEZES

By Warren T. Davis

▶ Two years ago, one summer morning at 3:00 a.m., your correspondent, aboard what he still considers the fastest sail boat on the lake in spite of the beer he has lost to others on that matter of opinion, sailed into Milwaukee Harbor and found there part of his crew asleep in the park. Sleeping on a bench or rolled in a sail, these boys were stiff and sore, but they still thought most highly of the crowd they had seen at the Milwaukee Y.C. This club, organized in 1894, has a three story frame clubhouse at the north end of Milwaukee Harbor. A repair shop and derrick are operated in conjunction with the clubhouse. Louis Quarles is Commodore this year, with Fred Chandler and Herbert Wuesthoff as vice and rear commodores and Kenneth Dunlap as secretary-treasurer.

Among 225 members, there is a fleet of 102 yachts of which 87 are sail. These range from the largest to the smallest. Among the small fry are fleets of Sea Gulls and National One-Designs. The skippers of the latter fleet made a record last year which was reported before in this column. About 14 small sail boats were acquired by members last year along with the big fellow, *Northern Light*. The Navy acquired five fine yachts from the Milwaukee fleet when they received Erwin Uihlein's *Atlantic*, John Herzfeld's *Gryphon*, Ralph Friedman's *Tamaris*, Herman Falk's *Seaforth* and Harry Grant's *Hightide*.

Many fine racing skippers have hailed from Milwaukee and there are still a number there. Racing is stimulated by a variety of classes and numerous events. In the cruising division, *Volante*, owned by Downing, Christy and Evert, out of six starts took four firsts and one second. Harry Bremer's *Simoon* took three firsts, one second and one third out of seven starts. Eldred Stephenson, in the "Q" *Stephia*, out of fifteen starts, took nine firsts and five seconds and garnered the Virginia Cup in stiff competition.

▶ The matter of racing within a club where the fleet is made up of every type and condition of yacht has been rather satisfactorily solved by the Corinthian Y.C. Frank Scholpp, the chairman of the race committee, has reported in the February club letter the handicap system which was used during 1942. This was based on past performances and allowed for full one hundred per cent handicap. The first race of the season was a trial race and did not count in the final standing. After each race, the time difference was averaged with the previous races of the series and the handicap for the next race determined. Lieutenant Commander Warren S. Hatch, formerly rear commodore of Corinthian, has taken the place of Lieutenant Commander Goldenson as Officer in Charge of Navy Recruiting in Chicago and adjacent territory.

▶ Tom Kerrigan has been elected Junior Commodore of the Michigan City Y.C. The junior section of the club is new and growing. It is starting a twelve-week study period and those passing the tests will be qualified to handle certain boats made available to the juniors.

▶ The gas rationing has caused a great amount of talking, conferring and petitioning on the part of power boat men with large power plants. The maximum allowance is so small that it hardly makes it worth while to commission the larger boats. Allowances will be made for gas used in the Midshipman Training program and in Coast Guard patrol, etc. It is hoped that the gas rationing will not keep boats laid up that might otherwise be used in Midshipmen training.

▶ The able Dean of the Great Lakes Cruising Club Navigation School, Gordon Brummel, Chicago Y.C. member and owner of the Tumlare *Hexa*, has been commissioned in the Navy where he expects to continue teaching. The Cruising Club's Course is becoming famous and Brummel's work has

been a great factor in its success. The fifth school, now in session, has an enrollment of 219 men of whom 105 are actually in the services.

▶ Russ Moon and Bob Cameron, Chicago Yacht Club, bought the R boat *Safara* from Dr. Ver Brugghen. It is said that some of the yachts taken over by the Coast Guard last year for patrol duty are being returned to their owners this spring.

ON COLLEGE CHARTS

By Leonard M. Fowle

▶ Unless there is some unexpected development at the last minute, the Inter-Collegiate Y.R.A. will go through with its announced schedule of championship events during the spring season. There will be some familiar faces missing when this card of ten major events gets under way with Brown's Lucien Sharpe Trophy invitation regatta on the Seekonk, April 11th. Indications at present are that most of the 27 member and associate member clubs will be represented at the majority of regattas for which they are eligible. As true sailors, most of college yachtsmen have chosen the nautical branches for their future service.

▶ There are two important changes in the tentative schedule previously announced. The third annual Middle Atlantic Member Championships for The America Trophy has been advanced to May 1st and 2nd and will be held on its traditional date, a week before the National Championships for the Morss Trophy at M.I.T. This event will be at Annapolis with Navy as host. The Naval Academy will also hold the Middle Atlantic Associate Member Championships on April 24th instead of April 25th. With these two changes, the spring schedule has been ratified by clubs concerned.

▶ An attractive addition to the spring schedule is announced by the Naval Academy A.A. in the form of a dual regatta between Navy and Coast Guard at Annapolis on May 22nd. The service schools met for the first time in dual sailing competition at New London last May. An interesting sidelight on the 1943 meeting will be the matching of the skill of Capt. Roger Fontaine, of the Navy team, and of his brother Arthur, Coast Guard's No. 2 ranking skipper.

▶ With midwinter graduations and the calling up of enlisted reserves by the Army, there have been annual elections at a number of member clubs during the last two months. At Yale, last fall's commodore and I.C.Y.R.A. president, Ensign Richard W. Besse, U.S.N.R., has been succeeded by the club's former able secretary, John P. Weitzel. Clifford Lewis is the new vice commodore, Wilmot V. Castle, Jr., is rear commodore, and Gerald Daly, secretary-treasurer.

▶ Arthur Staub has succeeded "Bus" Mosbacher as commodore of the Dartmouth Corinthian Y.C. and the other new officers are Vice Commodore Robert Taymor; Leslie Thompson, secretary; Frank Bousquet, treasurer; and Shell Spicer, boatswain.

▶ Commodore Johnny Fuller having departed from Williams, M. Michael Griggs has become the senior flag officer with John Miller vice commodore; Henry Strong, rear commodore; F. Crunden Cole, secretary, and John Tyler, treasurer.

▶ In the Nautical Association of M.I.T., the new commodore is John R. Taft, who as race committee chairman managed all the major I.C.Y.R.A. regattas on the Charles last fall. His assistants are Vice Commodore Samuel Parkinson, Treasurer Ralph Evans and Secretary Stephen King. Gerry Reed continues as sailing director in the absence of Lieut. Walter C. "Jack" Wood, U.S.C.G.R.

▶ Princeton has had a succession of new commodores since Pearl Harbor with five different leaders in 15 months. The latest is William Trubee who will have Jack Denison and Bill Chisholm — both recent commodores — as his junior flag officers and Rodman Moulinier and Alan Haines as secretary and treasurer, respectively.

▶ William Rothfuss has taken over at Cornell with the graduation of Commodore James Beardsley. Jackson Pope remains vice commodore while the Willcox family keeps prominent in the college yachting picture as the Cornell Corinthian Y.C. opens its membership to co-eds and elects Miss Sally Willcox as secretary-treasurer.

▶ Among the Associates, Boston College has elevated Jim McSorley to the commodoreship with James Keenan vice commodore and John Elliott secretary-treasurer. The club adopted a swallow-tail burgee featuring a golden eagle with clutched anchor on a maroon field. The Association's newest member, Bowdoin, bolstered by faculty support, will be guided through the next season by William Moody, commodore; Frank Oxnard, vice commodore; and Leonard Sherman, secretary.

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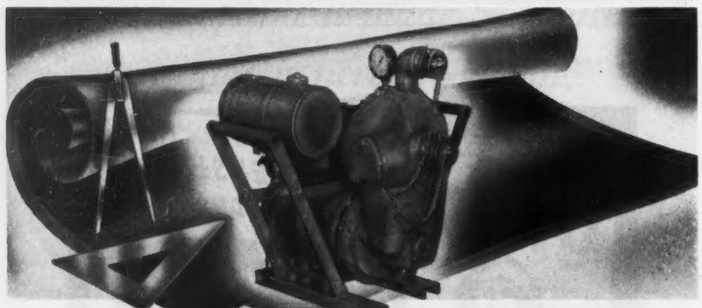

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COMET COMMENTS

By Malcolm D. Lamborne, Jr.

▶ Class President D. Verner Smythe reports that interest in the starting of Comet fleets at two places in Colombia has picked up recently, following receipt of communications from Carlos Eduardo Perez, an architect at Bogota. One fleet would be on a lake hundreds of feet above sea level at Bogota and the other near the Caribbean at Barranquilla.

▶ Ed Merrill, former national Comet champion and regional vice president of the C.C.Y.R.A., comes forward with an excellent suggestion for this season. Why not place every Comet possible in commission so that when the boys in the armed services come home on leave they will be able to do some sailing and enjoy the sport they love, asks Skipper Merrill. This way, they can feel that things are being kept alive in their absence.

Merrill is now at work on his third Comet which he hopes to have sailing this summer. Her name is *Tym-Fly*. Quite a few Comets are expected out on the Delaware River, both at Riverton and at Edgewater Park, home of the "Reluctant Dragons." That is the name the boys at the Red Dragon C.C. give themselves but, if you know the crowd, they are far from reluctant, particularly in winning races.

▶ The "Dragons" got together last month for their annual dinner and it was a well-attended affair. Phil Somervell, the last national champion, and George Rhawn, Jr., his ex-crew, were among the boys coming back from the services for the occasion. Dr. John Eiman, Commodore of the C.C.Y.R.A., was on hand, and gave another of his grand talks.

▶ *Aquilla*, first owned by Alton O'Brien at Perth Amboy, N. J., and then sold to Bud ("Monk") Farrington, has been sold again, and this summer will put in an appearance at Edgewater.

▶ George H. Potts, regional vice president for the West Coast, reports that difficulty in buying lumber in British Columbia is going to cut down the number of new Comets. Even at that, the sailors up at Vancouver expect three or four additional Comets. He also is working on the formation of two new fleets this spring.

110 CLASS TIDINGS

By W. T. Pickering

▶ Lieut. William R. Thompson, secretary of the Honolulu National 110 Fleet, reports that all the Pearl Harbor 110's survived the December 7th ordeal. However, they are now inactive for the duration.

Lieut. Thompson states that the boats handle extremely well in the rough Pacific weather and that "surfboard riding has nothing on the 110's."

▶ The National 110 Class Y.R.A. has listed fourteen active fleets comprising a total of 142 boats. These do not include many unaffiliated boats scattered throughout the country, one of which is at Colon, Panama, and another at Acapulco, Mexico.

"Unattached" 110 owners are urged to establish fleets where there are a sufficient number of boats. For information, contact Martin L. Cassell, Jr., Sec.-Treas., Room 1025, La Salle Street Station, Chicago, Ill.

▶ If the turnout of the Long Island Sound 110 skippers at a recent meeting is an indication of the class activity for the summer of '43, some lively racing can be anticipated in spite of wartime handicaps. All those present felt that racing should be resumed in the spring.

▶ A thought for "One-Teners" in the Service. . . . There will always be a boat and crew available for use if you are in the vicinity of Long Island Sound on any race day. Call or write Harry Herbert, 100 Pelham Road, New Rochelle, N.Y.

▶ Lieut. (j.g.) R.N. Bavier, Jr., will not have much opportunity to use his 110 *Fun* this year but R.N. Bavier, Sr., expects to carry on in Bob's absence.

▶ With fitting-out time not far distant, the following suggestion by George Lawley & Son for refinishing an iron keel may be welcomed by many. . . . Pickle keel with one-half muriatic acid and one-half water. Swab solution on iron; keep wet one-half hour. Wash off with hot water. Rub down with No. 3 steel wool or wire brush.

Apply two coats zinc chromate primer six hours apart and dry over night. Glaze between coats with zinc chromate glaze. Sand second coat. Apply two coats antifouling copper paint.

W. C. Sawyer photo

Three Rhodes 33's at the Newport Harbor Y.C. H. F. Beardslee's "Sea Bee" (8), Race Week winner, J. V. Guthrie's "Sunbow", and D. K. Washburn's "Hi Jinks"

WEST COAST BUBBLES

By Kent Hitchcock

▶ War busy Los Angeles Harbor has no place or time for a regatta these days so the Annual Mid-Winter was abandoned. The Newport Harbor Y.C. came to the rescue with a substitute. It was scheduled as the Washington's Birthday Series and it provided the contestants with a fancy assortment of winter California weather. The sporty 23′ Albatross Class, as usual, stole the show for turnout and close competition. The Rhodes 33's were the largest class to compete on the all-bay courses at Newport Harbor and the ever popular Dyer Dinghies held the attention of the small boat fans. The power cruiser skippers, from Region 12 of the A.P.B.A., provided a double barrelled attraction for the regatta. They staged a Power Cruiser Navigation Contest and then manned a fleet of sailing dinghies for a special series of races.

The results:

ALBATROSS CLASS: (1) Inslee, *Mystic;* (2) McNally, *Souvenir;* (3) Morris, *Crispin.*

DYER DINGHIES: (1) Allan, *Siwash Papoose;* (2) Carver, *Blitz;* (3) Lehman, *Suju.*

RHODES CLASS: (1) Beardslee, *Sea Bee.*

PENGUIN CLASS: (1) Mynatt, *Bucket;* (2) Craig, *Dud.*

FALCON CLASS: (1) Gurley, *Williwah.*

PACIFIC 14′ DINGHY CLASS: (1) Bob Kyle, *Chaser.*

POWER CRUISER NAVIGATION CONTEST: (1) Ivan Wells, *Ivanola;* error, 1 minute 30 seconds.

POWER CRUISER SAILING DINGHIES: (1) Hoffman, (2) Johnson.

▶ The Southland boating industry was stunned at the sudden death of J. W. Peyton, Jr., senior partner of the Peyton Co., of Newport Harbor. "J. W.," only 35 years old, was stricken with a heart attack. Born in Shreveport, La., he came to California in 1940 to join his father and brothers in the boatbuilding business. J. W. Peyton, Sr., died in July, 1942, just before the Peyton Co. launched the first of the 110-footers for the Navy. In the three short years which J. W. lived in the Harbor District, he has earned the undying affection and respect of the boating fraternity. He was always courteous, a friend to everyone, an active civic leader and a respected and able business man of the highest principles. He was president of the Harbor Boat Builders Association. He will be missed.

▶ The Cabrillo Beach Y.C. was host to small boat skippers in an invitational regatta held over two successive week-ends. Peggy Slater, perennial champion of the PIC's, was unable to compete but brother Bill, Six-Metre Champion, stepped into Peggy's *Seventh Heaven* and upheld the family honor with a first place.

Final Results:

PACIFIC INTERCLUBS: (1) Slater, *Seventh Heaven;* (2) Davis, *Chalupita;* (3) Harry McKinney, Jr., *Wahini.*

CALIFORNIA CRUISING: (1) Cheney, *Rowdy;* (2) Tuttle, *Mist;* (3) Alcorn, *Tomahawk.*

MERCURY: (1) Ament, *Quick Silver;* (2) Ryan, *Pinabar;* (3) Watson, *Senorita.*

▶ The Southern California Y.A., at its March meeting, elected the following officers: Commodore Alonzo D. Jessop, of the San Diego Y.C.;

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Vice Commodore George C. Fisher, of the West Coast Y.C.; Rear Commodore Jim Webster, of the Newport Harbor Y.C.; and Secretary M. S. ("Robbie") Robinson, of Region 12 A.P.B.A. The Association presented retiring Commodore Lieutenant Wesley D. Smith, U.S.C.G., with a handsome ship's clock and barometer, in token of his faithful work through two terms of service.

▶ News of Men in the Service: Dr. E. H. Riesen, Staff Commodore of the Balboa Y.C. and Region 12 of the A.P.B.A., has been called to active duty with the U.S.C.G. with the rank of lieutenant. Region 12 of the A.P.B.A. reports five more men in the services this month: Harry Sage, with the Army at Camp Ord. Orville Allison, in the Engineer Amphibian Command in training in Florida. Bill Dennis, owner of *Miss Spitfire*, is a lieutenant in Naval Aviation at Tucson, Arizona. The Army sewed a sergeant's chevrons on Vern Lindblade and shipped him off to Honolulu. John Griffin, owner of *Una C*, is in the Army.

▶ At a recent party, the Balboa Y.C. awarded trophies for the Fall and Winter Series of the Pacific 14 ft. Dinghy Association. The event celebrated the first anniversary of the "war baby class." The series comprised 16 races, held on courses near the B.Y.C. R. W. Kyle and crew Don Royce, winners of the series, were given the Founders Trophy, posted for competition by Fred Brewer and Craig Doyle.

Series Results: (1) R. W. Kyle-Don Royce, *Chaser*, 20 pts.; (2) Barbara Metcalf-Craig Doyle, *Buttercup*, 32¼ pts.; (3) Robert Henley-Mary Henley, *Ambitious*, 49 pts.

▶ Coast Guardsmen at the Balboa Station recently put on a whaleboat pulling race that brought back memories of the days when the Southland S.C. used to hold regular sculling races on the lower bay. We haven't seen a pulling race of any kind since that organization gave up the ghost many years ago. The Coast Guardsmen put on a dinger of a half-mile contest in regulation 26′ whaleboats with 10 men and a coxswain to each. Harbor Master Russell Craig acted as starter with Lieutenant Tom Turner, U.S.C.G., acting as judge. The race was neck and neck, the winning boat doing the course in 5:18.

PENGUIN CLASS PATTER

By Penguin Pete

▶ The national officers of the Penguin Class met recently in Washington D. C., amid a feeling of optimism for the outcome of Penguin sailing in 1943 despite many wartime restrictions. The executive committee decided to forego publishing a new handbook this year, and again no national regatta will be held.

The stress this year will be on fleet and inter-fleet competition, the committee decided. To this end, the national body plans to award trophies, or perhaps medals, to fleet winners. The group is also working on a plan to set up distinguishing emblems to be sewn on sails of fleet champions. This will require an amendment to the by-laws. The two proposals have great merit and should go a long way toward encouraging more racing.

Ralph Youngs, national secretary, reported that during 1942 his office issued 255 new Penguin numbers. Also reported was the formation of two new fleets in Massachusetts, one in Boston and the other at Manchester. Two junior fleets likewise have been organized: one at the Kingston Y.C., Kingston, Ontario, and the other at the Sea Cliff Y.C., Sea Cliff, L. I.

▶ A fleet charter has been issued for a group of yachtsmen at the Hampton Y.C., Hampton, Va., where a fleet of eleven Penguins is in the making. Racing began there, in the very heart of one of the most active naval areas in the East, early last month. The fleet captain is Warren A. Brooks.

▶ The Middle East may be a vital war zone where thoughts are only on preparing to repel the enemy but it hasn't prevented a group, presumably English, from turning to thoughts of sail boats. The secretary's office recently received a communication from Eric Slater, located somewhere in Iraq, seeking plans for the building of Penguins. Also enclosed was one "dinar" in Iraq currency to cover the cost of plans and their mailing. It has posed an interesting problem in international finance.

▶ Penguin skippers in Washington, D. C., have been turning out regularly and in good numbers for a Frostbite series off the Capital Y.C. An average of ten dinghies has competed in races held every other Sunday. With the capital experiencing a relatively mild winter, it has been Frostbiting in name only. On two occasions, skippers have raced in shirt sleeves. One brave soul turned up in February wearing shorts.

Among the winners of series have been Walter Lawson, national champion, and Robert McKean, former dinghy sailor at Larchmont, N. Y. The Reckord brothers, Jack and Raymond, have been commuting by train

from Baltimore to sail. They keep their Penguins in Washington, thus getting around the pleasure driving ban. Prizes each Sunday have been war stamps.

▸ Paul Morris, former captain and fleet champion of the big Seattle, Wash., fleet, has been racing with Fleet 14 at San Diego, Calif. It seems that Paul is now a Navy radioman stationed at San Diego, and he lost little time in ferreting out a Penguin group.

▸ Not so fortunate has been the case of George Ruby, former vice president of the group at Los Angeles. Now a lieutenant in the Navy, George is stationed at Phoenix, Ariz. He reports that he has surveyed every irrigation ditch for miles but has yet to find one large enough to float a Penguin.

▸ Ben White, mainstay of the San Diego fleet, has gone to Brazil and Bert Israel has been elected in his place as fleet captain. Elmer Small is vice captain. The race committee is headed by Paul Morris and George Jessop.

MASSACHUSETTS BAY FLASHES

By Ed Earle

▸ The annual meeting of the Massachusetts Bay Yacht Clubs Association drew an unusually large turnout at the South Boston Y. C. Last year's officers were reelected. They are: Commodore Edward D. Sharkey, of the Jeffries Point Y. C., Vice Commodore Thomas F. Sheehan, of the Squantum Y. C., Rear Commodore Thomas M. Moroney, of the South Boston Y. C., Secretary George L. O'Hara, of the Chelsea Y. C. and Treasurer Norman A. Gray, of the Winthrop Y. C. The board of directors includes Frank C. Hendry, of the Quincy Y. C., and Harry Bernstein, of the Dorchester Y. C. It was voted to omit the annual opening of the season dinner of the Association owing to the many uncertainties and complications of the restrictions now in effect and those that may be operating.

▸ A fitting tribute to Herbie Donovan, of the South Boston Y. C., was paid by Commodore George Hamilton, of the Pleasant Park Y. C., on behalf of the Association for his many years of hard work in its interest. A combination ship's clock and barometer, mounted on a handsome mahogany base and suitably inscribed with the Association burgee, was presented to Herbie, who was distinctly surprised but pulled himself together enough to express his heartfelt thanks. Lunch was served by the South Boston Y. C. under the culinary expertness of Fleet Captain John Mesiti, on a night off from his Coast Guard patrol duty.

▸ The Association has lost one of its staunch delegates, Albert Donovan, of the Dorchester Y. C., who recently died. Al was chairman of the nominating committee which presented the names of the present officers. He gave unstintedly of his time and talents to the courses in navigation and applied subjects held each year by the Association. His wisdom and sound judgment were stabilizing influences in the organization and the yachting game as a whole.

▸ The 35′ over all auxiliary yawl *Bittersweet II*, built in 1940 for Alfred Sweet, Jr., of Manchester, has been bought by Mrs. Brackett Parsons, of Wellesley Hills, through the office of Eldredge-McInnis, Inc.

▸ The regular monthly meeting of the Commodores' Club of America was held at the Rowe's Wharf quarters of the Boston Y. C. with President Joe Donough, ex-Commodore of the Savin Hill Y. C., in the chair. The meeting was especially arranged to discuss the policy of the club for its future meetings and to appoint a nominating committee to bring in the names of officers for the coming year. The nominating committee included Walter Murphy, Neponset Valley Y. C., chairman; Commodore Sands, Squantum Y. C.; Gullickson, Merrymount Y. C.; and former Commodores Yoerger and Burgess of the Town River Y. C.

▸ Secretary J. Amory Jeffries, of the Eastern Y. C., has been elected to the Appeals Committee of the N. A. Y. R. U. Henry A. Morss, Jr., also of Marblehead, was made a member of the executive committee.

▸ The Boston Y. C. slated three Dog Watch Junior meetings for 1943 in March, April and May. Wartime conditions do not favor an attempt to duplicate winter activities of the club to the extent established by the famous Dog Watches. The committee includes George H. Batchelder, Ralph Painton and Arthur F. Wilband.

▸ Among the several letters received from yachtsmen in active service there is always a nostalgic reference to the dear old fitting out days around the Bay in spring.

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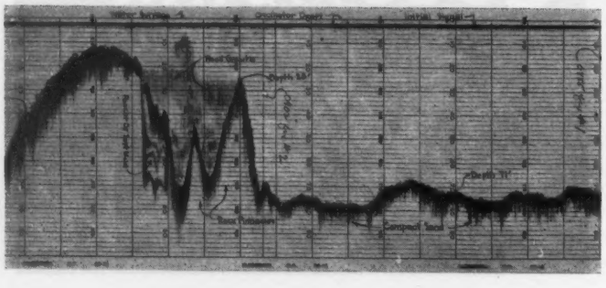

CHESAPEAKE BAY ACTIVITIES

By Bugeye Bill

▶ While Patapskut S.A. membership is well represented in the various services, the club is going ahead with plans for the coming season. Elected to head the club, which is located on the south shore of the Patapsco River below Baltimore, is Dave Johnson.

Francis Taylor is the new vice commodore; Charlie Wallace is secretary; Charles E. Loughney, treasurer; W. B. Bergen, chairman of the race committee; and F. M. Stevenson, Jr., chairman of the cruising committee. Other officials are: Dr. Joe Nelson, delegate to the Chesapeake Bay Y.R.A.; T. Marshall Duer, measurer; J. Sheridan McClees, Jr., house committee chairman, and W. Hall Harris, III, entertainment committee chairman.

▶ In Washington, Mac Lamborne was reëlected commodore of the Potomac River S.A. for a second year. George Dankers is vice commodore; Owen Oakley, secretary-treasurer, and F. W. Weiser, recording secretary. Arthur Clephane, who has held the job of secretary-treasurer for nine years, has left the capital for Philadelphia for the duration of the war.

Members began fitting out boats last month in preparation for the opening of their spring series early next month. Officials expect another big fleet this year, perhaps equal to the 46 starters counted in the 1942 fall series.

▶ With Commodore Pete Magruder, Comdr. Cavode Davis and others taking the lead, the Annapolis Y.C. was looking forward to another active year of sail racing. Plans are being made for the spring series, also scheduled to open early in May.

The same spirit was noted on the busy Severn River at the U. S. Naval Academy. Stars, the 14-foot International Dinghies and some of the knockabouts were expected to join in the Annapolis Y.C. series. The Navy's large and growing fleet of cruising yachts also will be back in commission this spring, all set for the first C.B.Y.R.A. event, the May 23rd shakedown race of the Maryland Y.C.

▶ Commodore Walter H. Smith, of Washington's Capital Y.C., has appointed the following committee chairmen: George Bright, auditing; Jack Stone, house; Daniel H. Fowler, membership; Cushing Daniel, entertainment; and Dr. Albert E. Pagan, regatta. Fleet captain is Lawrence P. Kent, and Dr. Valentine M. Hess is fleet surgeon.

▶ In addition to the Maryland Y.C. shakedown race, the C.B.Y.R.A. calendar for May includes the Swan Point-Love Point race on Memorial Day. It will be sponsored by the Gibson Island Y.S. and, like the Baltimore race, cruising, racing and Delta Classes are slated.

▶ Dick Randall, one of the early officials of the C.B.Y.R.A., has been staying in Washington this spring after a long absence from the Bay country. Formerly of Baltimore, Randall sailed out of Gibson Island.

FLORIDA TRADE WINDS

By Vivyan Hall

▶ Some of the men who have had active experience in anti-submarine work and convoy protection have been called back to teach at the Sub-Chaser School at Miami. Philip LeBoutillier, Jr., of New York and also of *Stormy Weather* and the 1935 Norway race, is on the staff now as are Link Price, from Buzzards Bay, and Jack Uhl, from Grand Rapids. Going through the school are Phil Mertz and Oliver Everett, both from Rye; W. M. Dickerson, Jr., of Larchmont; William Stetson, of Southport; Peter Jenness, of Barnegat Bay; and Frank Combiths, of Chicago. Fran Byrne, Chicago dinghy and Star Class sailor, is on Coast Guard duty in these waters. Larry Reybine, of Larchmont, is a school graduate in the Caribbean service. Don Lee, of Houston, has a YP, a former shoal draft auxiliary in which he patrols the high seas. Ronald Lee, his brother, has a command basing on Key West. Steve Trumbull, former Star Class sailor and Bahama cruise writer, is now in the public relations office of the Seventh Naval District.

▶ The Royal Nassau S. Club, is going ahead on the sound principle that the best possible relaxation from the tension of the war is sailing. Its New York Y. C. Trophy races were held as in former years. Sailed in the one-design Pirate Class sloops, the series was won by Godfrey Higgs' *Blackbeard* which, a year ago, took the King's Cup. Commodore Rafael Posso and his associates in the Habana Y.C., are still considering a Star Class series with contestants from other countries coming in by plane with their sails and using the Cuban boats. Charles de Cardenas, who raced under

similar arrangements at Chicago last summer, reported that they worked out fine. To keep up the continuity of its Washington Birthday regattas, the Palm Beach Y. C. ran sailing races instead of the usual power boat races. The officers, C. G. Warner, Roscoe T. Anthony and C. J. Ohmer, have loaned the clubhouse for a USO center. New officers at the Clearwater Y. C. are H. J. Keller, John A. Taylor and Gardner Cornett. Re-elected at Eau Gallie are J. T. Hendrick, A. A. English and Stephen D. Baker.

▶ Charles Perrochet, of Miami Beach, has bought the 44′ schooner *Evangeline* from Gordon Prince, of Boston. Lieutenant Commander George De Garmo, Jr., has just bought the 34′ auxiliary ketch *Robin Hood* from S. P. Zaney, of Miami, and has added her to the group at the Biscayne Bay Y. C. Boats that have changed hands here are Hugh Matheson's *Coconut*, one of the Lightning Class, now owned by Dr. E. Sterling Nichol, and a Bay Bird auxiliary sloop now owned by Mrs. Darwin L. Gillett. She belonged to Russell Grove and Frank Dunbar before they signed up for the Navy and War Production Board, respectively. A boat new in the fleet is the Class X dinghy which Milton Bird has bought from Commodore C. M. Robinson, of Fort Lauderdale. Townsend Ludington, of Philadelphia, has sold his 18′ Cape Cod Knockabout to Holder Collier, of Coconut Grove. Ensign T. M. Culbertson, Jr., now in the Naval Air Force, has sold his Lightning *Thor* to Courtney McConnell, of Coral Gables. Heaton Owsley, also of Coral Gables, is so busy teaching air navigation that he has had to sell his 26′ sloop *Silver Spray*.

▶ The St. Johns River Shipbuilding Co., at Jacksonville, is beginning to launch Liberty ships, sending its first, named *Ponce de Leon*, overboard March 14th. The yard, which started from mud flats ten months ago, now includes 38 buildings. Steel was conserved in the construction of the plant by substituting wood and concrete wherever possible. . . . For excellent results in the building of sub-chasers, the Daytona Beach Boat Works has won the Army-Navy "E". Immediately following the presentation of the silver "E" pins to the yard workers who made the record possible, another 110 was launched. . . . Trying out a new line of business, two able architects are now running the Miami Beach Boat Slips. Russell Pancoast and A. J. Ferendino are now servicing everything from Coast Guard patrol boats and Army aircraft rescue vessels to the comparatively few small pleasure craft that are still in commission. In storage here are a number of yachts, including L. E. Searles' *Entre Nous*, William H. Berri's *Little Bolo* and Marion Hassler's *Stormy Petrel*. Pancoast's own 40′ Huckins cruiser is active in the Coast Guard Auxiliary.

THE SOUTH SHORE OF LAKE ERIE

By John G. Robinson

▶ The annual spring meeting of the Inter-Lake Yachting Association will be held in Cleveland on April 3rd.

Milton N. Gallup, commodore of the I.L.Y.A., has announced the appointment of Stanley W. Puddiford, of the Crescent Sail Y.C., Detroit, as chairman of the important sail yacht regatta committee, with Harold Priebe, of the Edison B.C., as vice chairman, and the following committee members: James A. Beidler, Toledo Y.C.; Marian Seward, Edison B.C.; Harry McFarline and B. A. Murbach, Crescent Sail Y.C.; J. B. Edwards, Bayview Y.C.; Herbert Winges and Fritz Schroeder, Oakland County B.C.; Lt. W. L. James, J. H. Killius and Wade Rapprich, Cleveland Y.C.

▶ Dr. Hugo O. Brown, of Berlin Heights, was elected commodore of the Vermilion B.C. for 1943. Gordon K. "Sandy" Douglass was elected vice commodore and Arch H. Stevenson rear commodore, secretary and treasurer.

The date of the annual South Shore regatta at Vermilion was announced for August 14th and 15th, the week-end immediately following the Inter-Lake regatta at Put-in-Bay. The club is planning a handicap race from the Bay to Vermilion for all classes but details have yet to be released.

▶ Commodore Charles F. Stewart, of the Mentor Harbor Y.C., has announced a pre-fitting out party for members and their families for April 16th at the University Club, Cleveland.

Heavy storms from the north have filled the Mentor Harbor channel with sand and gravel, as usual, but Rear Commodore Warren Chase, who has charge of the harbor work, believes the Mentor dredge will lick up the sand long before the first boat is in the water.

Despite the war and the number of members in the armed services, the actual membership of the club will be greater than last year, according to Commodore Stewart. The stimulus to membership is said to be the activities of the Mentor Coast Guard Auxiliary's educational campaign.

▶ The Westlake Y.C., Cleveland's youngest yachting organization, has secured a lease on the docks of the Cleveland Metropolitan Park Commis-

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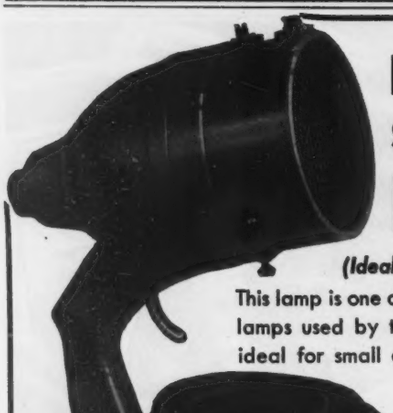

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sion, on the east side of Rocky River, just south of the Detroit Ave. bridge.

The club is planning to build individual boat docks at right angles from the main pier, so that at least 30 small boats can be accommodated.

At a recent meeting of the club, the 1942 officers were reëlected as follows: Commodore, Nicholas Poli; vice commodore, Neil Saudy; rear commodore, Earl Keefe; secretary-treasurer, William Maucher and fleet captain, Henry Kuchta.

▶ O. P. Sutton, of the Forest City Y.C., who heretofore has devoted all his boating activities to power boats, has bought the G.L. 21 Class sloop *Skeeter* from Herbert P. Bailey, of the Mentor Harbor Y.C.

L. S. Hart, of the Mentor Harbor Y.C., who recently bought the Over-Niter *Mist II* from Thomas P. Bolton of the Cleveland Y.C., has sold his 26′ auxiliary sloop *Tyka* to Robert Purcell, of Clifton Park Lagoon, Lakewood.

▶ The Edgewater Y.C., of Cleveland, has placed a contract with the Wells Construction Co. for new dock piles. The plan calls for a main dock with a length of 420′, a wing dock, at right angles, for 190′, and a south dock, parallel to the main dock, some 600′ in length.

▶ Past Commodore Jim Hilling and Walter Shick, of the Lakeside Y.C., have been commissioned ensigns in the Coast Guard Temporary Reserve.

▶ Jack Caldwell, chairman of the sail race committee of the White City Y.C., has announced that the season's schedule of races of that club will feature ten weekly races, one long distance race and a final event.

▶ Alden Seitz, of the Sandusky Y.C., declares that a number of boat owners from other Lake Erie ports intend to dock their boats in Sandusky this year to be able to reach the islands on a minimum amount of gasoline. Sandusky is reached easily by train or bus from all Ohio cities and towns so that owners will be able to spend their week-ends aboard their boats and be within easy cruising range of the most popular yachting centers on the lake.

DETROIT RIVER AND LAKE ERIE NEWS

By Walter X. Brennan

▶ The big topic of this area this month will be gas rationing for boats. The latest forms issued from headquarters indicate that the government wants the boats kept in commission but limits gasoline to two gallons per horse power with the maximum of 125 gallons for a three-month period. In a few instances, ration boards have allowed more than the 125 gallons in early applications in the full interpretation of "keeping the boats in commission" clause but most of them are sticking to the 125 limitation.

Commodore Milton Gallup has a committee working on the argument that if gasoline is allowed for automobiles so that Coast Guard Auxiliary, Power Squadrons and Civil Air Patrol members can have gasoline to get to classes, allowance should be made so that students can go out and practice their navigation as well. To date, ration boards show little interest in considering the matter further with yachting committees.

▶ Charles Beck, chairman of the race committee at the Bayview Y.C., Detroit, is going ahead with plans for the annual Port Huron-Mackinac race in mid-July. Bayview feels that there is no violation of patriotic good taste in holding the race because it is an accepted policy now that everyone, to do his best work, is entitled to a vacation. There is no reason why

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yachtsmen shouldn't sail the race in their vacation period. Although weather conditions were ideal for a fast run last year, many of those taking part lost only Saturday and Monday away from their work.

▸ The Put-in-Bay Y.C. recently reëlected Commodore William Miller to head the organization for the year.

▸ Clete Welling, of Detroit, has bought a N.Y.Y.C. "32" which should add interest to the summer's sailing around Detroit.

▸ Don Wallace, of the Grosse Pointe Y.C., has bought Edsel Ford's 30-Square-Metre *Nordic*. Considerable interest is being shown here in the class and it is possible that a fleet will be in competition this season.

▸ The Star Class, which has been in the doldrums at Detroit for several years, shows signs of picking up this year. Eino Nurme is fleet captain of the Detroit River fleet and E. O. Haller, secretary.

▸ Edwin A. Shoemaker was elected commodore of the Buckeye Lake Y.C. for 1943 with Doc Harris and George Crites vice and rear commodores. Lel Dressel is secretary and treasurer. The club has taken in 30 members during the past year which more than replaces those lost to the services. The club will again stress Lyman cats, Lightnings and Inter Lake cats.

▸ Yachtsmen may have visioned their craft of the future on March 8th when the Ford Motor Co. released pictures of the amphibian jeep the firm is building for the armed forces. The hull-equipped car drove over rough terrain, ice cakes and into the water in the first public demonstration. A power winch on the forward deck supplies extra pull when the jeep can't climb out of the water onto shore.

MAINE COAST NOTES

By Lawrence B. Getchell

▸ Nearly one hundred years ago, when steam-propelled war vessels were first being numbered among the fighting ships of Great Britain, Sir Howard Douglas wrote in his treatise *Naval Warfare With Steam:* "It must not, therefore, be assumed, in preparing for steam warfare, that the sail will be entirely supplanted by steam, or that steam fleets may dispense with crews of able seamen."

In the humble opinion of a Down East shellback, Sir Douglas' statement has been proven as solid as iron, for certainly one of the most impressive lessons being retaught by current sea warfare is the great, lifesaving value of thoroughly schooling potential seamen in the use and handling of small sailing craft. A powerful argument substantiating a policy of compulsory sailing ship training for all future Naval and Merchant Marine personnel may some day be compiled from data collected from the hundreds (perhaps thousands) of men and women who, by the time this war ends, will owe their lives to sail-equipped life boats skippered by sail-experienced men.

Perhaps no better illustration of those points can be drawn than to recount briefly the recent experience of a 40-year-old Maine skipper, Captain Earle Greenlaw, of Searsport, who, with eight members of his torpedoed ship's crew, sailed a 23-foot open life boat 1900 miles from mid-Atlantic to a South American port in 39 days.

When Captain Greenlaw's steamship sank, she was approximately 1500 miles from the nearest land. He and eight seamen got off on a life raft, the rest of the crew escaping in one of the two supposedly undamaged life boats. After floating and paddling all day and night, they came alongside

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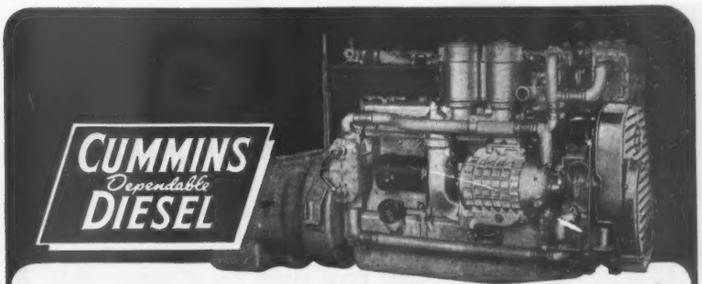

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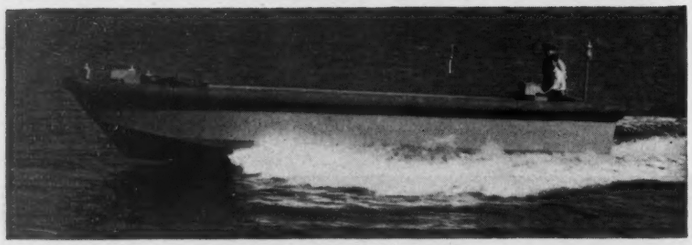

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the empty life boat only to find that she had been punctured by shrapnel and was half submerged. The only tool available with which to make repairs was the Captain's jackknife. Using that, and bits of wood salvaged from their raft, together with rope yarns and pieces of clothing, they plugged the holes. Water was bailed out, mostly by cupped hands, and the craft was made as seaworthy as possible.

No sailing gear was aboard the boat. But, luckily, they found, among the floating debris, a piece of canvas large enough to fashion a leg o' mutton sail. A mast and boom were made by lashing oars together with the painter, while enough rope to make rigging was salvaged from the water. They had no compass, sextant, chart, or (after a few days when salt water wrecked it) even a pocket watch. However, knowing his approximate position when his ship sank and being blessed with starry nights, Captain Greenlaw set and sailed a course for South America.

At the start of this voyage, the food supply consisted of one thirteen-gallon keg of water, 106 bottles of malted milk tablets, 52 boxes of C ration crackers (25 to a box), 53 three-ounce tins of pemmican, and 65 bars of chocolate. That, plus the flying fish and sea birds caught along the course, sufficed to within a few days of reaching port.

Captain Greenlaw said they were becalmed only five days, being favored by strong winds at all other times. They made their first landfall January 5th after having been aboard the life boat since November 28th and being listed as "missing and presumed lost" by the Navy since December 26th.

▶ The worst shipyard fire to occur here in a great many years completely destroyed the big main building and a large amount of equipment at the Snow Shipyard, in Rockland, on February 25th. The building housed the offices, boiler room, boiler shop, blacksmith shop and garage. Fred Gatcombe, general manager, estimated the damage at nearly $500,000. About 300 Naval and Coast Guardsmen assisted the local fire departments in fighting the blaze and in preventing the flames from spreading.

▶ Many yachtsmen familiar with the appearance of Maine's harbors and coastal lanes in summer would be surprised to see how much that appearance changes in winter. Here's a hint of how things looked a while back. On February 11th, a couple of men fell through the thaw-weakened ice on Fox Island Thoroughfare while relaying mail from North Haven to Vinalhaven. The dunking took place near the spot where summer-time cruisers usually see the "Rainbow Fleet" — all those North Haven Y.C. dinghies with their multicolored sails. Remember it next time you're making the Fox Island passage.

▶ New president of the Todd-Bath Foremen's Club is Captain George T. Calder, Port Captain for the South Portland Shipbuilding Corp., and former Master of J. P. Morgan's *Corsair*. Captain Calder, a native of Calais, Maine, is well known in shipping and yachting circles, having served in the Red D Line, Porto Rico Line, Luckenbach Line, and for Henry J. Gielow.

▶ The largest fleet of Maine windjammers now under single ownership is sailing under the house flag of Captain Frank Swift, of Camden. Eight vessels comprise the Swift fleet, the latest addition thereto being the Deer Isle-built, 35-year-old schooner *Enterprise*, recently acquired from William Leach, of Orland, Maine. The other seven vessels are the coasters *Mattie, Clinton, Lois M. Candage, Annie F. Kimball, Lydia M. Webster, Hattie Loring*, and the schooner yacht *Indra*. All are two-masters.

The only motorized craft in the fleet is *Hattie Loring*. As soon as the ice leaves the coast, she and *Enterprise* will start carrying cargo to and from the islands in Penobscot and Blue Hill Bays, basing on Camden.

▶ The first American vessel sunk by the Germans in World War I was the Bath-built sailing ship *William P. Frye*. She was named for Congressman Frye, of Maine, who reputedly "wrote and put through more and better legislation pertaining to the American Merchant Marine generally than any other man who ever served in Congress." To commemorate his name, another *William P. Frye* was recently launched at the South Portland Shipbuilding Corp. She's a Liberty Ship.

▶ *Irish Stew:* The Maine Boatyards Association, Inc., has contracted to build five 45′ picket boats for the Navy. These will be built in the Association's yard at Ellsworth. A. S. Higgins, M. I. T. graduate and former member of the Army Air Corps, is the Association's new purchasing agent. . . . That pennant waving over the main office building at the Bath Iron Works is a brand new Navy "E" with two stars! It is Bath's reward for turning out a new destroyer every three weeks. . . . Yr. hmble. & obdt. svt., etc., who happens to be chairman of The Harbor Committee of Bar Harbor and vice president of the Frenchman Bay Shipbuilding Corp., has signed on with Henry R. Hinckley as production trouble-shooter. The Hinckley organizations at Southwest Harbor are currently producing five types of craft to Government order besides building commercial fishermen in the 100′ class, and a 65′ transport.

NEWS OF THE INDUSTRY

Lieut. Comdr. C. W. Leveau, U.S.N.R., Assistant Supervisor of Shipbuilding, presents the new Army-Navy "E" flag, with distinguished star added, to Andrew Jackson Higgins, President of Higgins Industries. Pennants had previously been awarded the company's Industrial Canal, City Park and Bayou St. John plants

SOMETHING NEW HAS BEEN ADDED

▶ Higgins Industries has had a distinguished star added to its Army-Navy "E" for having kept its record-breaking production output at the peak during the past six months. . . . Two internationally famous yacht builders, Robert Jacob, Inc., and Henry B. Nevins, Inc., both of City Island, New York, were recently awarded Army-Navy "E's" in the first duplicate ceremony in the history of the Armed Service's production awards. . . . Jenkins Brothers, valve manufacturers of Bridgeport, Conn., have been awarded the Maritime Commission's "M" pennant. . . . A second star has been added to the Army-Navy "E" flown by the Consolidated Shipbuilding Corp., of New York. . . . Army-Navy "E's" have also recently been awarded the Richardson Boat Co., of North Tonawanda, New York; the Leathem D. Smith Shipbuilding Co., of Sturgeon Bay, Wis.; Fair Haven Yacht Works, Fairhaven, N. J.; Freeport Point Shipyard, Inc., Freeport, N. Y. and the Caterpillar Tractor Co., Peoria, Ill. . . . The Bausch & Lomb Optical Co. has won its third star for its Army-Navy pennant. . . . C. L. Cummins, founder-president of the Cummins Engine Company of Columbus, Indiana, has been appointed Executive Consultant on Diesel Engine Production to the War Production Board, with headquarters in Washington. . . .

VALUE OF CANALS NOW RECOGNIZED

▶ The utilization of canals for the transportation of vitally needed oil to the Eastern Seaboard is at last being widely recognized, reports Ira Hand, secretary of the National Association of Engine and Boat Manufacturers. As evidence, Mr. Hand pointed to the demand for immediate action to construct the Florida Barge Canal; the recent House bill by Majority Leader McCormack (Mass. D) to construct the 33-mile cross-Jersey "missing link" in the Atlantic Intracoastal Waterway and the proposals by Governor Thomas E. Dewey to make fuller use of the New York State Barge Canal in bringing oil to New York Harbor.

The Florida Barge Canal project, authorized by Congress last July, but for which no appropriation has been made, provides for a 195-mile route across the northern section of the state from Port Inglis on the west coast to Jacksonville. This would join the Gulf Intracoastal Waterway, skirting the Gulf of Mexico, with the Atlantic Intracoastal Waterway. Oil from Texas fields could thus be waterborne as far as Trenton, N. J.

Coincident with General Summerall's demand for immediate action, two bills have been introduced in the House of Representatives, both furthering the general provisions for adequate channels to relieve the oil shortage. The bill by Representative George A. Dondero, of Michigan, provides for the deepening and extension of the Gulf Intracoastal Waterway. The bill recently introduced by Majority Leader John W. McCormack calls for the construction of a 33-mile canal from Sayreville, on the Raritan River, to Bordentown, on the Delaware River. Construction of this canal would completely eliminate the necessity of vessels traversing open sea between New York and the entrance to the Eastern Intracoastal Waterway at Manasquan Inlet on the north Jersey coast. Representative McCormack's measure calls for a channel 27 feet deep and 250 feet wide, to be built at an estimated cost of $187,000,000.

Meanwhile, Governor Dewey has been studying the fuller use of the New York State Barge Canal. Lighting the Canal at night and dredging to speed barge movements to New York Harbor are being considered in the effort toward insuring an adequate supply of oil for next winter as well as alleviating the immediate shortage.

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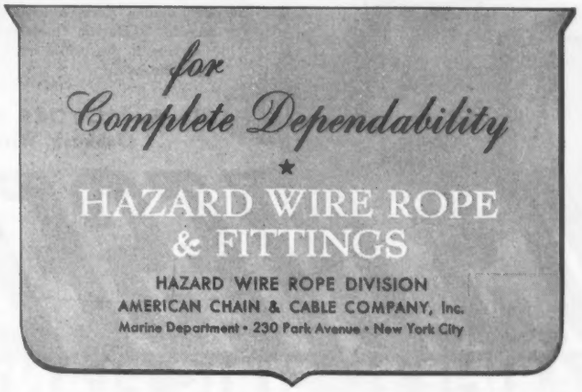

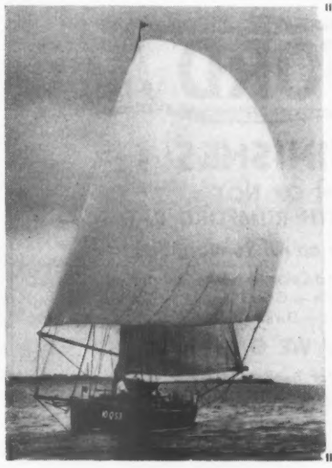

Nylon Fabric for Sails

This photograph, showing spinnaker of Nylon fabric, illustrates the adaptability of Nylon for light sails. Further research in cooperation with the Nylon Division of E. I. duPont de Nemours and Company, Incorporated, is now in progress for use in brighter days ahead.

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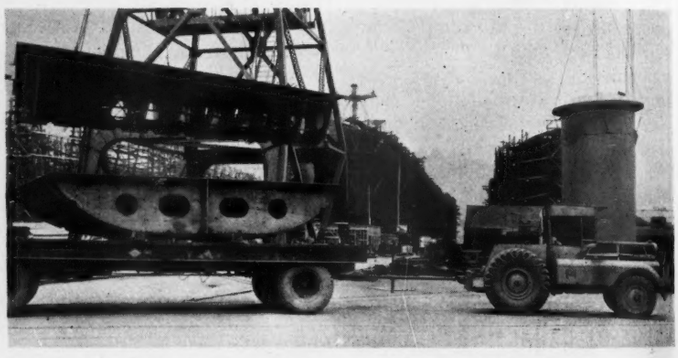
Mrs. Andrea Mulford, wife of John W. Mulford, Vice President of the Gray Marine Motor Co., sponsors a new YMS launched recently at the yard of the Greenport Basin and Construction Co.

ON THE PRODUCTION LINE

▶ With an eye to the importance of post-war planning, Devoe & Raynolds Co. has announced the formation of a three-man planning board to study prospects and possibilities for the paint and brush industries. . . . Cornwall Shipbuilding Company, Inc., Cornwall Landing, N. Y., has completed and shipped its order for 300 KD barges in three months. A complete barge slid off the assembly lines every four hours. . . . Bludworth, Inc., has made another notable contribution to safe navigation with a supersonic depth recorder. This instrument employs dry paper recording which provides a distinct and sharp delineation of sea bottom features from which the character of bottom materials may be interpreted. The Simplex Bludworth Recorder is designed to meet commercial marine operating requirements.



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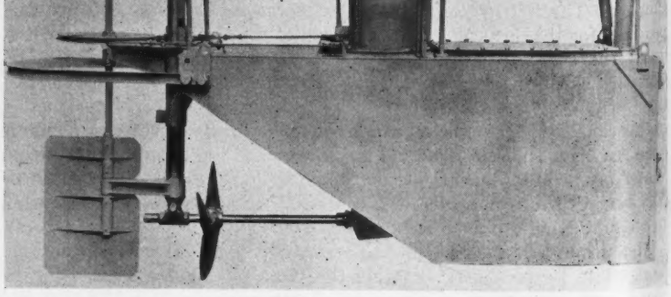
▶ Oluf Mikkelsen, New York distributor for Evinrude and Elto outboard motors, has sent out an urgent call in behalf of various Government agencies for used outboard motors in small quantities. These motors are needed in a hurry for important war uses, and it is suggested that any individuals or dealers who know of any such motors communicate with Mr. Mikkelsen at 393 Fourth Ave., New York.



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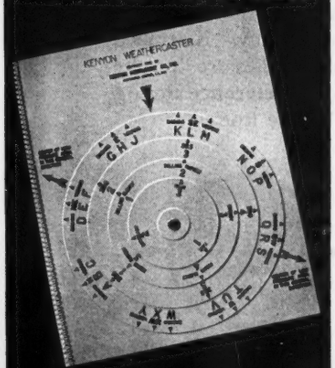

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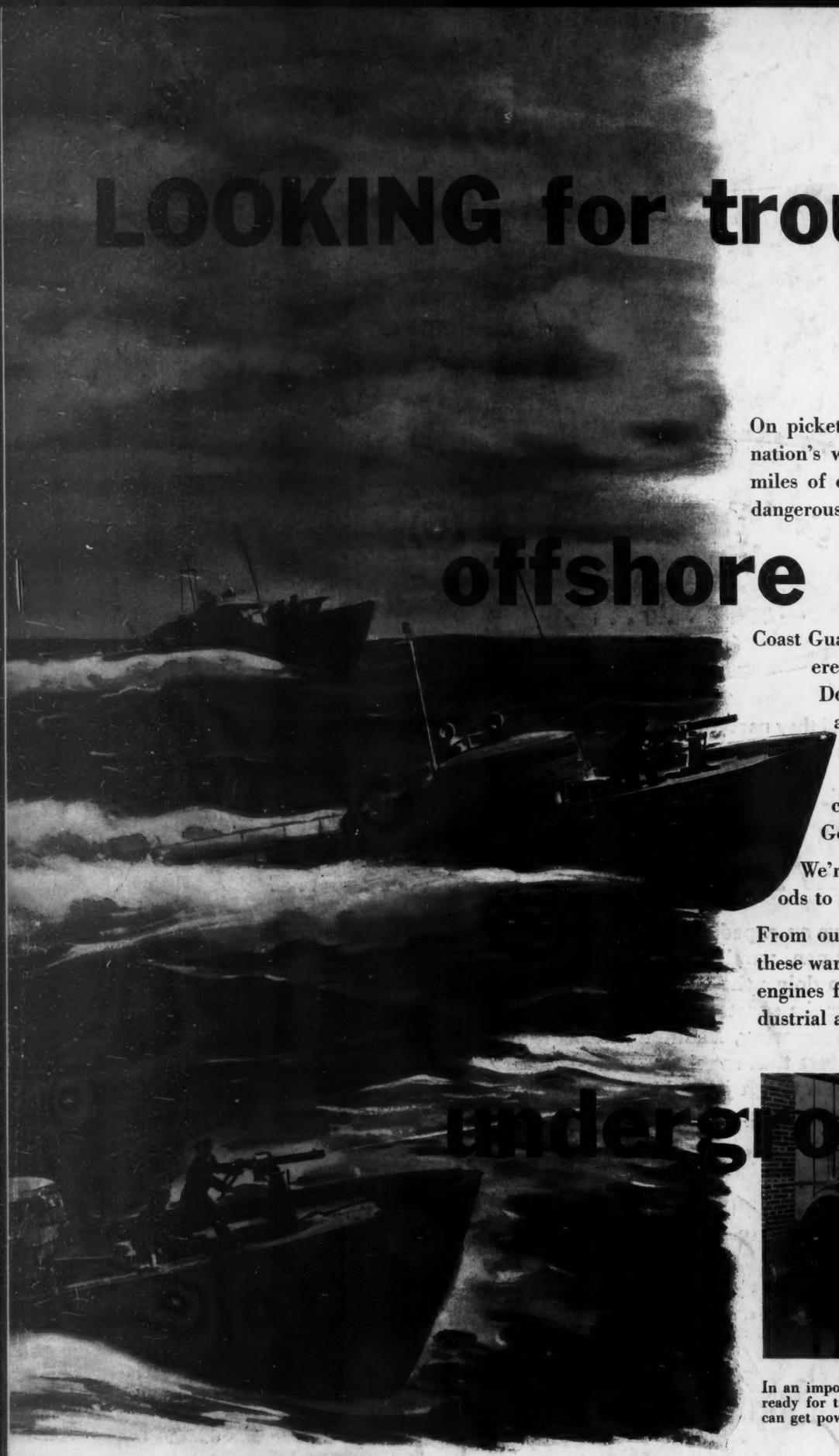
LOOKING for trouble



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